

Principles
of
Democratic Education

*A Functional Approach
To Fundamental Problems of Teaching*

by

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Preface

ANY person faced with the education of youth at the present time needs to have in view a sound and democratic program. The purpose of this book is to help those students and teachers who would orient their educational procedures, and thereby strengthen the democratic way of life in their schools and communities, to see more clearly certain fundamental principles that are involved. Through an analysis of learning and teaching activities this discussion moves toward the establishment of a workable basis for the continuous reorganization of school practice.

Education and social progress are retarded by conflict between diverse ideas which might be reconciled. In the United States, with our mixed heritage of pride in individualistic business enterprise and faith in the spirit of community co-operation, of practical emphasis upon specific habit formation and profound confidence in general intellectual education, of respect for religion and reliance upon scientific method, and many other confusing outcomes of our cultural history, the need of clarified thinking as a means of promoting substantial action is imperative. Since every member of the present generation inevitably picks up conflicting ideas about life and education, he must harmonize his diverse notions in order either to learn or to teach con-

structively. Thus, in order to promote intelligent social action, in each chapter of this book one or more crucial conflicts are presented and suggestions are offered toward practical ways of adjusting the contrasting ideas in an educational program. This adjustment centers upon the interpretation of democracy and the application of this interpretation in its many related aspects. The consideration of definite problems constitutes a functional approach so that the student organizes his own experience into a working philosophy of education.

Part I introduces the reader to the nature of the conflicts underlying much of the confusion about democracy and its schools. The origin of conflicting ideas from early childhood through adulthood is illustrated as an indication that the individual is too often unaware of his own intellectual conflicts. The rise of the informal school furnishes examples of the diverse sources of the continuous social change that makes the resolution of conflicts between the old and the new a constant task. The problem of "school marks" illustrates the necessity for co-operative action of home and school in the elimination of conflicts and shows how the confusions within the school are related closely to similar confusions in the economic world. Following this introduction, Part II deals with the resolution of certain conflicts arising out of changes in psychological viewpoints and methods of school practice. New implications for the personal development of the learner and the consequent widening of common interests in the community are discussed. With this scientific basis, Part III presents various aspects of the democratic outlook or philosophy of life and education, concluding with an emphasis upon the individual's social experience as the source and test of the democratic way of life.

These fundamental problems are discussed in nontechnical language so that the book may become useful to students soon after they enter a course in teacher education. The analysis of each conflict is designed to reach deeply enough to stimulate also the more mature student of education and the teacher who is daily encountering the actual consequences of the issues considered. Thoughtful parents as well may be aided toward an understanding of and participation in the changes now occurring in the public schools.

The notes at the close of each chapter are intended primarily to aid those who wish to go more fully into the subject considered. No attempt is made to indicate the specific source of each idea in the text, although the references taken as a whole include the books and articles that have proved most helpful. Since the exact location of quotations often is an aid in further study, such references are incorporated along with those that are more general. The notes for each chapter include a few cross references to other chapters, so that the reader may select any chapter and still have available support from other parts of the book. Each chapter with its notes is designed to have unity within itself as well as substantial relations to earlier and later chapters.

Although the writer must assume responsibility for the ideas presented, his obligations to others are many. Professional associates, authors, and former teachers have contributed, while students in his classes have given illustrations and criticisms. Specific mention of a few persons may be made. Boyd H. Bode, through his writings, his class discussions, and his personal counsel, has encouraged and guided over a period of years the thinking and writing underlying the present statement. The writer's deep obligation to the publications and lectures of John Dewey is made

evident throughout the notes as well as in the text itself. Indeed, these chapters might well lead the more serious readers into the pages of Bode and Dewey. The following persons have been especially helpful, either directly through constructive criticism of this manuscript or indirectly through their counsel: Clifford A. Bayard, Mary McClarren Bruce, Frank S. Freeman, J. Cayce Morrison, Henry Neumann, M. C. Otto, and V. T. Thayer. H. E. Buchholz, Managing Editor of *Educational Administration and Supervision* and of *The Journal of Educational Psychology*, has given valuable suggestions and has graciously permitted the use of material previously published in the journals of which he is the editor. Acknowledgment is tendered also to the editors of *Educational Method* and *The Journal of Educational Research* for permission to reprint certain material that has already appeared in their publications. The generous support and encouragement of Principal Charles W. Hunt is gratefully recognized. The writer's thanks are also due to John M. Baker, who has made an able criticism of the entire manuscript.

WILLIAM BRUCE

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Editor's Introduction

The chaotic conditions in the world today baffle many of us who have pinned our faith to democracy as a way of life, and it is difficult to determine the direction toward which the governments of the world are heading. With autocratic Communism and totalitarian Nazism and Fascism dominating European civilization in the present and extending control in other parts of the world, we wonder whether democracies are not on their way out and whether our ideal of democratic education is a fantasy. Viewing the situation close at hand, we need not be surprised that extreme pessimism over the preservation of the democratic ideal exists. A longer view, however, should encourage us.

Throughout our civilization there have been two kinds of control—personal and social. Personal control characterized governments until the revolutionary period of the eighteenth century, which initiated modern social control, or democracy. Personal control has been characterized throughout history by various types of paternalistic governments, monarchies, and other forms of absolutism. The modified government, or social control—control through public opinion—was initiated and made headway particularly in America. European countries followed our lead, and, while there were continual reversions and reactions, a general progress toward

social control, or democracy, took place during the nineteenth and early twentieth centuries. Therefore, it appears that the present reactionary movement may be a temporary one, and that, even in Europe, ultimately progress toward democracy will be resumed. In any case, it becomes necessary for America to reconsider fundamentally her whole democracy and the policies of democratic education.

No topic with which the American people are concerned is more significant. For this reason, any discussion of the principles of democratic education is opportune. This book makes a definite contribution to the democratic way of life through education.

E. GEORGE PAYNE

PART I

THE ORIGIN AND NATURE OF CONFLICTS

CHAPTER I

Conditioning and Social Education

At the very beginning the meaning of *social education* may be clarified by presenting two pictures: the first illustrates conditioning training and the second shows the meaning of "social education" as used in these pages. A baby of 11 months is having his morning bath. He is splashing about gleefully, gurgling with delight. "Tommy certainly enjoys his bath," remarks the chance caller. "Yes," Tommy's intelligent mother replies, "I take care that he does like it. I always test the temperature carefully so that the water feels just right to him. While he is given lots of opportunity for the active movements he enjoys, I take precautions to hold him from slipping in any way that will frighten him. Then he has his bath regularly at the same time every morning. I talk to him a good deal, and he likes the sound of my voice. Thus, through many sensory avenues I have conditioned him favorably toward bathing—and incidentally toward water, whether on the beach or in the bathtub. He now takes to it almost like a duck."

Contrast, if you please, this conditioning training with the social education that Tommy will acquire as he passes from infancy through childhood into adolescence. Again, bathing in its varied aspects may be used for illustration. By the time Tommy is ten years old, he needs to learn how

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often and on what occasions to wash his hands. This learning will go beyond a mere feeling that washing in water is pleasant and beyond the habitual following of a routine schedule to the making of judgments based upon a more or less scientific understanding of sanitation. These judgments involve some biological knowledge concerning infection by bacilli carried on the hands. The sanitation *idea*, which reaches the child through the social instrumentality of language rather than by crude conditioning through the sense organs, is one small phase of his social education. Another idea about bathing with which American mothers commonly deal is the privacy of the bath in the case of the older child. In early childhood, brother and sister may use the bath at the same time; but as they come into later-childhood, the Occidental custom of separating the sexes is usually adopted with puritan conscientiousness, although Oriental civilizations with a much older bathing tradition adhere to mixed bathing for adults as well as children. Paradoxically, the change from the social event of bathing the baby, in which brothers, sisters, parents, and even casual visitors participate, to the nonsocial private bath of the ten-year-old is a phase of social education; another idea—privacy—has been transmitted from the social group to the individual by means of language. As the child who in infancy has been conditioned favorably toward bathing grows older, he will add many more queer notions and intelligent judgments concerning even so simple a problem as his bathing activities. Such *ideas*—whether wise or foolish—are illustrations of the innumerable meanings that constitute each individual's *social education*.^{1*}

* The reference numbers in the text refer to the notes at the end of each chapter.

Overconfidence in Conditioning Training

The student of child psychology, because he has been so favorably impressed by the effectiveness of the conditioning training of infants, sometimes fails to recognize the need of older children for a different kind of guidance in the realm of social education. It is true that within the last decade programs of child development through skillful conditioning have been built upon the substantial basis of thorough scientific studies of the child's normal growth processes. The leaders of the movement have made parents and teachers realize that ideal child development begins with close adherence to a routine of feeding, sleeping, eliminating, and bathing appropriate to the infant.² Such a system produces the "good," healthy baby of today and, still more important, lays a sound foundation for his physical growth and emotional balance in the years ahead. From the psychological standpoint, this kind of child development program is mainly a process of habit formation through conditioning; or, in the psychologist's terms, *conditional reflexes* have been established. The mother's intelligent control of the environmental conditions sets behavior patterns in the infant's life without his conscious participation in the learning process. Although such training is of great value, one must remember that it implies almost no intelligence on the part of the baby. He understands his own training little more than does the family puppy or kitten. Nevertheless, the infant's life appears to be a smoothly organized development containing a minimum of irritations and conflicts. As the student of education observes this gradual development of health habits during infancy, he may be tempted into the assumption that the conditioning

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process, which produces a happy, smiling baby of six months, will likewise give society a mentally active six-year-old and later a well-adjusted adolescent of 16 who is bound to mature at 60 years with ripened wisdom. When one assumes conditioning to have all-pervading usefulness, however, he is in serious danger of relying so heavily upon a physiological view of development that he will neglect the entirely different problems which arise as social education begins.

Beginnings of Speech and of Conflicts

The error, which promotes dangerous overconfidence in conditioning techniques, consists in disregarding the very significant changes that the coming of speech brings into every youngster's life. During his second year the normal child begins to speak and to understand more or less clearly the vocalized ideas of his elders. The advent of language in the child's experience carries him beyond the playful antics of a young and healthy animal into the beginnings of thoughtful human behavior. The child is never again a mere baby to be trained like a puppy or a kitten. One sees his "mind" growing by little jumps as he grasps one idea after another from the common speech and gestures of his helpful family. By his third birthday the normal child is using nearly 1000 different words, while at five he passes the 2000 mark.³ Although the mother must continue the healthful conditions required for her child's bodily growth and his emotional well-being, the processes of his development gradually come to reach far beyond the scope of conditioning techniques. The "mental" aspect of behavior, which emerges as the child begins to use language, creates new problems and opportunities for those who are responsible

for his unified development. These responsible guides—be they parents or teachers—need to recognize clearly the peculiar possibilities and dangers of this intellectual, language-using, social education which lies beyond the infancy period characterized by physiological and emotional development.

One peculiarity of intellectual activity, which causes much difficulty throughout life, is the ready absorption by the learner of conflicting ideas without, at first, sufficient strain to warn the victim of the conflict. Note the difference between the physiological and the intellectual levels in this regard. When a child eats two conflicting foods, he gets a stomachache. As the physiological organism rebels, the child becomes quite conscious of the painful digestive strain. In the intellectual, language-using realm, however, it is entirely possible for the youngster to accept without definite protest diverse ideas picked up here and there—in the home, on the street, in the church, at the school. For example, the six-year-old's question, "Where did baby brother come from?" may be answered carelessly in the home by reference to the hospital organization or the family physician, since storks build no nests on American houses. At the church the mystery is deepened by speaking of the infant as a divine gift. On the street a worldly-wise playmate may add half-truths beclouded with gutter interpretations, while in the modern school the advent of the white rat or guinea pig litter may be the occasion for a more or less complete scientific explanation. Even then the six-year-old may still be much confused, for he scarcely realizes the conflict of views within him. Although conflicting ideas may by chance fall into words which flatly contradict each other, in many cases these conflicting ideas live side by side in the same individual for years, even for a lifetime. The result

is a continuous confusion that interferes seriously with any attempts at constructive social action. If the individual—meaning the nondivisible—could be warned by a headache each time his “mind” became divided, he and his guides would become more conscious of his need of social education. As it is, the teacher must be very acute in detecting the conflicts concealed in minds at various age levels if he is to deal wisely with young children, adolescents, and parents. In addition, the teacher may need to discover and reduce many a conflict within his own thinking and living.

Parents commonly use conditioning beyond infancy to bring a child into conformity with certain social ideas. Whether or not this practice is wise, they do find that before a child is six years old he can be trained against picking up candy from the street gutter or from the grocery counter. He may not understand very clearly that sanitation underlies the first instance, while honesty determines the second. Nevertheless, he no longer picks up the chocolate bar from the gutter; in the grocery he restrains himself until the candy is bought and paid for. Apparently, negative education has been successful, even when a mere conditioning technique has been employed. On the other hand, no training will keep the child from picking up new and strange ideas that float up to him from the urchins playing in the gutter, nor those that descend upon him from the grown-ups gossiping in the grocery. In addition to ideas from these sources, most six-year-olds have their minds filled with movie and radio programs, to which an occasional Sunday School lesson is added for good measure. So the first-grade teacher meets a youngster whose mind is crowded with a number of things—not all of them fitting together neatly for the

promotion of educative action. On Monday morning at school the six-year-old may feel vaguely the dilemma of choosing between two behavior patterns: one of quiet reverence demanded on the previous morning by his Sunday School teacher, and the other of boisterous tussling encouraged by Dad on Sunday afternoon. In his dramatic play, shall he be the murderous gunman of the movies, or, as Mother suggests, the less ferocious and more socially useful fireman? Possessed by two conflicting ideas, he wavers momentarily from one to the other, or combines them into an absurdity of fire sirens and fatal shots. Inevitably a child who listens intently through four of his six years to our jargon about this and that will pick up day by day many a troublesome conflict from the complexity of modern times.

Take another illustration. A group of seven-year-old second-graders had performed an experiment in which a glass jar placed over a burning candle gradually extinguished the flame. The teacher then suggested that the children repeat the experiment at home. A day or two later the children visited a fire station to learn about the control of fire in the city. Subsequently, when the teacher asked how many children had tried the candle experiment at home, one seven-year-old replied, "The man at the firehouse said we shouldn't play with matches." Apparently this youngster's action had been blocked by the conflict between the fireman's warning and the teacher's suggestion. Other children, however, gave evidence of having faced this conflict clearly enough to resolve it successfully. One boy said, "I use safety matches." A little girl added, "I experiment when Mother is there." Thus, in group converse, a problem which appears insignificant to most adults, but is a blocking

obstacle for seven-year-olds, may be so resolved that every child is encouraged to go forward safely in experimental activities which educate.

Sometimes the solution is not reached so easily. For example, what Mother says about snakes may be in direct conflict with what Teacher says about snakes. Here the school may need to reach out into the home to remove a traditional prejudice against harmless, useful snakes. The mother's attitude, acquired in her own childhood from her elders, may have kept her from knowing the ways of snakes, and in all likelihood has seriously limited her woodland walks and her study of wild life. Only through the elimination of this conflict between unnecessary fears and fundamental interests will the mother and the child be freed for constructive biological investigation. Although the task of the teacher in such a case may be difficult, the tactful facing of this conflict may be the step that is most needed in the education of both mother and child. The child needs to be freed also from the conflict of allegiances—whether to accept Teacher or Mother as trusted authority, or still worse whether to act one way at school and a different way at home. The facing of any conflict of ideas, indeed, serves as a means of introducing parents to this central problem of education—the resolving of conflicts for the promotion of learning through fuller activity.

Even the simple teachings against picking up candy from the street gutter or grocery counter, which seem so successful, may merely cover up conflicts which live on for years in the child. This persistence is likely when the method used with the child is limited to a negative conditioning through admonition and punishment. Unless the youngster is led a few steps into the beginnings of an understanding of

sanitation in relation to street gutters and of private property in regard to grocery counters, the childish misunderstandings may grow into conflicts which will later plague not only him but the community that neglects his social education.

Origin of Adolescent Conflicts in Early Confusions

When the student of education turns from children of the early or middle grades to consider the social education of youth at the age of 16, he readily observes the presence of conflicts. Everyone expects the adolescent to be in conflict with himself and with his elders. Too often parents and teachers (who should know better) talk as though adolescence were a dread disease which inevitably descends upon youths at puberty and causes emotional conflicts. Are not the conflicts of the 16-year-old in considerable measure outgrowths of intellectual confusions which were present and should have been cleared away when the child was still six, or eight, or ten? ⁴ Into these early years come the beginnings of adolescent and adult conflicts, such as those conflicts between getting for self and sharing with others, between working for marks and studying for the love of the subject, between following one's interest and doing one's duty, between relying upon science and believing in religion, between having tact and being truthful and courageous, and between trusting in tradition and having faith in social reconstruction. When teachers and parents become intelligently concerned in detecting each conflict as it arises, so that they may offer the youngster a kindly suggestion for resolving the problem instead of hushing it up or evading it, the problems which belong specifically to the adolescent period can be handled much more adequately. Too often

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when speaking of elementary-school youngsters we say, "Oh, she'll outgrow that all right," or, "It may take quite a while, but eventually conditioning will cure him." We forget that during these childhood years the older generation unconsciously piles upon the youngster's shoulders most of the conflicts of life without offering a sensible suggestion for adjusting the burden.⁵ In each case a solution is needed to clear the way for the learner's constructive, intelligent participation in a democratic society.

Physiological Frustrations and Intellectual Conflicts

Before going further, a distinction needs to be made between strictly physiological frustrations and the intellectual conflicts with which the present discussion is concerned chiefly. When one takes the half-full bottle of milk away from a hungry baby, there ensues an emotional disturbance that is loudly indicated by the baby's cries. For the infant there is no intellectual conflict or confusion; ideas do not clash in his "mind" because he has not yet acquired the language instrument through which ideas and minds come into existence and achieve conflict.⁶ His emotional difficulty is the result of a relatively simple clash between his own ongoing inner hunger and the external force that removes the bottle from his sucking lips and grasping hands. The conflict is between the organism and the environmental forces rather than within the organism. A similar emotional upset may occur in the language-using three-year-old whose strong desire to clutch a bright-colored, fragile vase is frustrated when it is put up high on a shelf far above the youngster's longest stretch. Likewise, frustration and its emotional consequences may be observed in the ten-year-old when a thoughtless parent or teacher interferes with his

coaster-building or his bug-gathering activities. Again, simple frustration may be one cause of emotional difficulty in adolescents who are beset by the contrast between the very drives of their physiological development and the restrictions enforced by the social group. In all these cases an ardent desire is blocked by an external condition; consequently, emotional rage rises. The remedy may consist in granting the original desire, in diverting the individual's energies to some satisfying substitute activity, or possibly in a gradually conditioned habituation of the organism to abnormal limitations.⁷ Fundamentally, the conflict is an *open* one between the individual and his environing world.

On the other hand, the intellectual conflicts, which are considered in this book, are conflicts between diverse meanings within the individual's own experience. To a considerable extent these conflicts occur *under cover*. Neither the observer nor the victim can untangle easily the intricacies hidden within diverse language experiences. Nevertheless, the invisible strands bind the individual more securely than a spider binds a fly in its web. The emotional consequences and the frustrations of effective action are fully as severe in these confusions as in the simpler conflicts between a fixed desire and a blocking obstacle. Yet in these complex intellectual conflicts the remedy involves, not a blind struggle, but an exposure of the nature of the conflict to the individual who has it so that he may begin to deal with the difficulty. This defining of the problem is only an initial step; in an intellectual conflict the solution must go much further and in a direction somewhat different from the application of the psychoanalytic technique so commonly used in curing that other type of under-cover conflict—psychiatric maladjustment.⁸ While in psychiatric cases the emphasis may

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wisely be placed upon exposing the hidden conflict to its victim, in intellectual conflicts the definite location of the difficulty is merely preliminary to further steps through which an intelligent solution is achieved and tested in a concrete situation. This appropriate solution usually goes beyond a mere compromise between forces driving in diverse directions; the resolution of the conflicting interests requires the invention of a new mode of social action. It is a creative process for the individual, and he thereby modifies the society in which he participates either toward democracy or in a contrary direction.⁹

In the chapters that follow, certain conflicts that profoundly disturb teachers, parents, and children today will be exposed and steps toward their solution will be suggested. The distinction here drawn between the simpler, lower-animal type of frustration and the more complex, language-derived confusion does not imply, however, an actual separation of the two kinds of difficulty in dealing with them in practice. The reader is warned that an emphasis upon subtle, intellectual conflicts may need balancing by a thorough understanding of the physiological-emotional bases of all animal behavior, including human conduct.

Early Clarification for Democracy's Responsibilities

A fundamental reason for eliminating early in life misunderstandings and intellectual conflicts in America arises out of our democratic ideals. One of the principles of democracy is that each individual shall be encouraged to participate intelligently in determining the course of his own conduct, as contrasted with the blind obedience to a leader or a ruling group demanded in a society autocratically organized. But this freedom for intelligent choice carries

with it a liberal share of responsibility for choosing wisely, and such wisdom depends in turn upon a clear understanding of the interests of the whole community. The democratic ideal, to which the educational problems discussed in this book will be referred, states that the social organization should be designed to widen continually the area of common interests shared by the members of the group. If the child is to reach in his own lifetime this social achievement of sharing in the interests of his community, which is an outcome of long ages of social experience, he must begin early to acquire the clear understandings necessary for him to carry intelligently his small share of responsibility. Education for democracy does not mean that a fifth-grader is free to play and dawdle while the other members of the committee prepare the parents-day program; each school youngster must learn to recognize definitely and shoulder willingly his share of the work. As the youth in his adolescent years grows toward maturity, his interests and responsibilities must be enlarged in the direction of those of the adult democratic citizen.⁴ Consequently, the clarification of bewildering conflicts whenever they arise in childhood and youth, at home and at school, is a distinct contribution by parent and teacher to a fuller democracy today and tomorrow.¹⁰

Compartmentalization Dangers in Adulthood

The youth who is fortunate enough to survive the piled-up intellectual and emotional conflicts that threaten to overwhelm him in adolescence will meet further dangers ahead. He still runs the risk of becoming, sometime between 16 and 60, one of those adults who settle their conflicts by building tight bulkheads between diverse ideas. Such a person provides a separate cell for each of his notions

by a more or less mysterious process of compartmentalization.¹¹ A successful businessman, for example, comes to live in conformity with the two-sided principle that "business is business" and "religion is religion"—while the two shall never meet. With his strong right hand he deals harshly with his employees, as with his liberal left he donates a portion of his profits to charity. He believes in a powerful national state to protect his business in foreign lands; nevertheless, he insists upon being free—personally and in his business—from the power of the state. To illustrate in the public-school field, a teacher wants to be *free* from domination by a principal so that he may *control* his pupils as he chooses. An instructor urges his students to think independently, but he rates the students upon their scores in dogmatic, short-answer tests. The "mind" of man is so indiscriminate in its hospitality! It welcomes all conflicting comers into compartments so tight that the immature adult can live on in happy ignorance of the incompatibles which exist within him. That is, he remains happy until he encounters a crucial social disturbance such as a business depression crashing down out of a clear sky of free competition unclouded by governmental control. Or he sees adult crime mounting under the shadow of church spires and youthful delinquency increasing beside public schools that emphasize character building. Then the thoughtful adult may begin to wonder whether or not he can afford to disregard the conflicts which are being picked up each day by children and adolescents, and whether in the long run it pays to compartmentalize ideas in adulthood. Consequently, he may turn first to expose fully and to resolve intelligently his own compartmentalizations and second, to aid youth in avoiding conflicts that lead to compartmentalization.

Social Maturity: Chief Asset of Parent and Teacher

Our brightest hope of social education lies in those persons who have an understanding and appreciation of language-derived conflicts upon the adult level as well as upon the level of childhood, and who also have a direct responsibility for the daily guidance of young children. They include: first, students in training who are earnestly preparing to enter the teaching profession; second, teachers in service who are studying the child's life beyond the narrow limits of school skills and textbook knowledges; third, parents who are intelligently concerned that their child's life shall be wholesome, and who are at the same time relatively free from fixed preconceptions concerning the specific program to be followed in his education. To this short list may be added the wide variety of professional social workers, such as visiting teachers, truant officers, and settlement leaders, as well as many more voluntary workers in clubs for youth. The major opportunity and responsibility remains, however, in the hands of teachers and parents; we must rely upon the daily guidance that the growing child or the maturing youth receives in the school and the home.¹²

In emphasizing the opportunities which lie before parents and teachers, one may note two closely related aspects of the social education program. First, each parent and teacher must gain a social maturity through recognizing the conflicts which he himself has picked up in childhood and in adolescence. Along with this, each adult responsible for guiding children needs flexibility to enable him to make substantial progress in the resolution of his own conflicts, with their emotional and intellectual complexities. Our hope lies in those persons who have not yet gone so far in

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the compartmentalized partitioning of their own lives that their mental structures are stiffened beyond the possibility of reconstructive integration. This flexibility is far from being strictly a matter of age, but with each individual the danger of tight compartmentalization grows more formidable every year that hidden conflicts continue to be ignored. The second aspect of social education consists, of course, in the discovery by these intelligent, responsible teachers and parents of the child's conflicts as they arise and in their helpfulness to him in dealing with such problems. The point is that in eliminating childhood's difficulties, progress is seriously limited by immature behavior of parents and teachers whose lives impinge directly upon the children in their hands. This social immaturity of parents and teachers results too often in stupid and spasmodic vacillation between harsh coercion and mild indulgence. In distinct contrast, the socially mature person can give children intelligent guidance because he has appreciation and understanding of their conflicts supported by an adequate view of the "adjustiveness" needed in the democratic way of life.¹⁸

A Twofold Approach to Social Education

Although it is important to promote the kind of social education under discussion with children and adults of any age, two crucial opportunities come to our attention. The one is offered by the child who has recently emerged into the language-using age. If this young child is under the skillful guidance of socially mature parents and teachers, whether in the home, nursery school, or kindergarten, his conflicts may be discovered and resolved as they occur. In this way a wholesome development will be provided for by a program in which each year will bear the burden of its

own conflicts without a dangerous pile-up from neglected years. As the child progresses through the elementary-school years and through adolescence, he may, in fortunate conditions, be under the guidance at one time of a teacher who understands the peculiar confusions of ten-year-olds, or at another under the supervision of teachers who are especially helpful to adolescents. In the meantime the parents may well advance in their understanding of their child's conflicts so that they can carry their share of the responsibility for guidance in each succeeding year. One difficulty occurs when the parents trail behind or get ahead of the child's development and thus fail to deal appropriately with the conflict uppermost at the moment. Too often the ten-year-old gets treatment fitted to the child of seven while on another day he is held to a standard suited for adults. It is no easy task for parents or teachers to detect conflicts of children and youths just when help is needed, while it is so easy for us to force upon them too early our own conflicts. But a real program of social education for children cannot even begin until the parents and teachers have seized their opportunity for gaining intellectual maturity and emotional balance by dealing constructively with the conflicts they themselves have unwittingly acquired. Consequently, the program of social education describes a full circle, beginning with the parent and teacher guides of the child, who in turn picks up misunderstandings which come out of the adult, parent-teacher society. Thus, a twofold attack is necessary on account of the conflicts existing in children's minds and also in view of the evident confusion in adult society over economic, educational, and moral issues. The difficulties in the two periods—childhood and adulthood—are not unrelated.

Democracy: A Shared Search for Social Understanding

Notice that this willingness of parents and teachers to join the child in the reconciliation of a conflict common to all of them is an essential of the democratic way of life. *Democracy* means that the social organization is concerned with the development of each individual—whether he be parent, teacher, or child—through his sharing freely in the common purposes of the group and the activities which flow therefrom. Consequently, the sharing of intellectual and emotional difficulties constitutes a basis for continuous progress in the resolution of conflicts and in the creative production of clearer understandings and more constructive social action. Whenever teachers deal with children in co-operation with parents, child education becomes *at the same time* parent education *and* teacher education. Neither parent, teacher, nor child then attempts to dominate the situation: together they are seeking a change in view, a fuller understanding. The free sharing and the continuous searching represent two attitudes that are fundamental to democracy.

The reader may feel that the continued emphasis upon problems, confusions, and conflicts as the basis for social education reiterates the pessimistic note of a gloomy view of a sick society. Dewey has pointed out that “callings dignified by the title of professions have to do with the troubles and evils of mankind.”¹⁴ Must teachers join physicians, lawyers, and clergymen in stressing the cure of disease, disputes, and evils in order to reach professional status? Fortunately, there is a brighter side. Wesley C. Mitchell has given in his brief account of Thorstein Veblen’s life an illustration of the way in which a conflict of ideas may become a stimulus to intelligent thinking.¹⁵ Young Veblen

found, when he came to college from his Norwegian family life on a Minnesota farm, that the truths taken for granted at home and the truths taken for granted at school were so different as to raise doubts about one another. The modern American emphasis on "business success" even through evasive devices conflicted sharply with the ideals of hardy courage carried down from the ancient Norwegian Sagas. Thus, the son of an immigrant farmer began to wonder at the many differences he found between social groups as the scope of his observation and reading widened. The contrasts noted by Veblen acted as stimulants in a career of thinking and writing which produced such striking contributions to economic discussion as *The Theory of the Leisure Class*, 1899, and *The Engineers and the Price System*, 1921. If we turn from economics to the field of public education, Dewey himself furnishes the prime example of one who has found in the conflicting ideas of the school and of society a challenge to constructive thought and action. Early in his professional work he dealt with the conflict between interest and effort.¹⁶ Does one learn better when he forces himself or when he follows his immediate interests, or is there some way to retain both values in one's education? His most widely read book, *Democracy and Education*, delves into one conflict after another. Should education be a preparation for life or a reconstruction of life? Is democracy an individualistic or a social ideal? Is subject matter or method of more importance? These questions suggest a few of the issues that Dewey raises. Whether or not one agrees with the conclusions of Dewey and Veblen, these men have contributed notably to the promotion of American thinking largely because they have called our attention sharply to discrepancies within the common conglomeration of notions

about society and education. In other words, the optimistic view is that the search for confusions constitutes the first step toward clarification.¹⁷ Out of a study of democracy's inconsistencies and the school's contradictions comes the surer promise of a wholesome social life.

Although the reader may now agree that education should concentrate upon the clarification of confusions and the resolution of conflicts from childhood onward, he may feel that the road ahead is by no means clearly marked. The serious student of education is concerned about the direction of social change, about the characteristics of the ideal society which we seek through shared social action. Certainly even the first-grade teacher needs to have in view some changes in social attitudes which will carry beyond the six-year-old level into life at 16 and perhaps at 60. Yet it is always a practical question how far ahead one can wisely plan and how definite such a long-time plan should be. Nevertheless, all will agree that anyone responsible for guiding young children should have deep convictions concerning the improvement of the society in which those children will be seeking full, rich lives. Does it not follow that one will have deep convictions about the need for exposing hidden conflicts? Furthermore, the progress made in resolving the more serious conflicts at any level will reveal the next steps for the learner, for the educator, and for society. In other words, through concentration upon present confusions—whether of childhood, adolescence, or adulthood—the deeper will become one's convictions concerning immediate and ultimate social needs and the methods of meeting them. At the same time, the continuous struggle with prevalent confusions will save the individual from the dangers which lie in fixed, unchanging prejudgments. The experimental

approach to the solution of conflicts, when guided by a clear understanding of the democratic ideal of sharing, will lead to the discovery of the social conditions that will widen the area of common purposes among men.

The emphasis upon the experimental approach and the clarification of conflicts should not lead the student into regarding democracy as though it were merely an intellectual method. Democracy is set forth in the discussions which follow as a definite, social aim. Democracy may well be called a creed, if we remember always its peculiarity—different from most creeds—of carrying within itself provision for its continuous revision. In stating the democratic creed as a continual widening of common purposes, the word *continual* emphasizes the changing of purposes which carries with it the possibility of unlimited modification of the democratic way of life. The word *sharing* means, in addition, that the democratic social organization encourages each individual to share creatively in the planning of the group activities. While the methods employed should be as democratic as conditions permit, the means used are always subservient to the end in view—the democratic way of life.¹⁸

Conditioning: A Support for Social Education

Turning back now to the contrast between the developmental conditioning of the child and his social education, it is evident that the former may be organized as a support for the latter. Although the child development movement shows serious limitations when conditioning is overemphasized, it is making distinct contributions to social education. The expert care of the infant promotes an emotional balance which is favorable for discovering and resolving conflicts later. In addition, experimental work in child develop-

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ment frees parents and teachers from two misconceptions. In the first place, the achievements attained through conditioning techniques have demonstrated how adjustive the human organism is, how vague and nonrestrictive are the instinctive trends in human life.¹⁹ Second, the new methods of child training have encouraged parents to break the bonds of certain outworn customs which had been handed down from generation to generation. At the same time, scientific experimentation has substantiated aspects of value in certain old folkways of child care. This all leads toward more faith in the modifiability of human behavior and of social tradition, combined with a discerning respect for the progress made by our forebears. Under the influence of this attitude of intelligent search for a still richer life in the future, parents and teachers gain courage to center the attack of social education upon age-old conflicts. Instead of relying upon the past as a rigid pattern for life, they now use the past and present as stepping stones to a future characterized by new ways of thinking and living. These contributions made by the child development movement through conditioning and other techniques should not be forgotten, nor the continual need of emotional balance neglected, although the present discussion turns directly to the consideration of the intellectual conflicts involved in social education.²⁰ In the chapters that follow, ways will be sought for parents, teachers, and children to join hands and minds in turning the conflicts of life into avenues for their mutual education and shared social action.

NOTES

1.* Bode, Boyd H., *Fundamentals of Education*, New York, The Macmillan Company, 1921, p. 44. The author points out that in education "the term 'social' designates both a fact and an ideal."

* The consecutive numbers refer to reference numbers in the text.

It is a *fact* that "we learn the meaning of our environment by discovering what things mean to others." As used in my Chapter I, the word *social* refers to the plain fact that one learns by grasping the meaning entertained by others; it carries no implication of co-operative endeavor or moral concern for the welfare of others. For a more detailed statement of the distinction between *social* as pointing to a psychological fact and as indicating an educational ideal, see my Chapter XIV, the section entitled, "The Democratic Creed and Experimentalism," p. 316.

2. Watson, John B., *Psychological Care of Infant and Child*, New York, W. W. Norton and Company, 1928. This early, popular, influential book, which constitutes an introduction to the conditioning technique and to the behavioristic view of child development, is still a sharp challenge to many parents.

3. McCarthy, Dorothea, "Language Development," *Handbook of Child Psychology*, Carl Murchison, ed., 2nd ed. rev., Worcester, Mass., Clark University Press, 1933, Chap. VIII. A clear summary of the scientific studies of language development in young children, with an adequate list of references.

4. Richards, Esther L., *Behavior Aspects of Child Conduct*, New York, The Macmillan Company, 1932, Chap. XI. In the opening paragraph of her chapter on "Principles in the Management of Adolescence," this experienced psychiatric clinician states, "It is rare for a boy or girl to become a real problem at adolescence who has never been a problem before." Notice to what extent the problems of adolescence described have their origin and their solutions in the intellectual difficulties of vocational choice, leisure activity, and social responsibility, and the resolution of such difficulties.

5. Williams, Frankwood E., *Adolescence: Studies in Mental Hygiene*, New York, Farrar and Rinehart, 1921. The fundamental driving forces in the lives of all individuals—the frustration of which wrecks so many lives—are depicted in terms of early childhood (p. 70) under the title "Can Youth Be Coerced?" and in terms of adolescence (p. 102) under the title "The Adolescent Confronting the World: His Two Real Problems." Parents and teachers are accused of failing to help youth (pp. 148–151). What part may the resolution of intellectual conflicts play in a mental-hygiene program?

6. See Chapter VIII, the section entitled, "The Child's Intelligence and His Use of Language," p. 168.

7. Brooks, Fowler D., *Child Psychology*, Boston, Houghton Mifflin Company, 1937, pp. 300–302. This description of the anger behavior at successive age levels shows that the emotional response

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may become more intelligently organized as ability increases; consequently, the distinction between physiological frustrations and intellectual conflicts seems less sharp. Although intellectual activity may not eliminate physiological frustrations, it may contribute substantially toward emotional balance.

8. Sherman, Mandel, *Mental Hygiene and Education*, New York, Longmans, Green and Company, 1934, Chap. VII. The author presents *conflicts in the psychiatric sense*; hence, this reference will aid the student in seeing the distinction between those conflicts that are predominantly emotional in character and the intellectual conflicts set forth in the chapters of the present book. An understanding of mental hygiene, as promoted by writers like Sherman, is essential for any teacher who would go far toward discovering and applying a clear philosophy of education. These related aspects of teacher education are necessary because the same individual may be more or less seriously affected by physiological frustrations, psychiatric maladjustments, and intellectual confusions. For a practical discussion addressed to parents, see: Hicks, J. Allan, "Teen-Age Techniques," *The Parents' Magazine*, November, 1937, pp. 18ff. This article illustrates the complexity of certain emotional conflicts and suggests ways in which parents may aid adolescents in making adequate social adjustments without argumentative discussion. When such basic relationships have been achieved, the youth is much more likely to talk voluntarily with his parents about his intellectual conflicts.

9. Bode, Boyd H., "The Confusion in Present-Day Education," *The Educational Frontier*, W. H. Kilpatrick, ed., New York, D. Appleton-Century Company, 1933, Chap. I. The need of becoming sensitive to contradictions in beliefs and practices is clearly set forth by means of illustrations from current American life and education. What relation is suggested between democratic procedures and the resolution of conflicts?

10. Dewey, John, *Democracy and Education*, New York, The Macmillan Company, 1916, Chap. VII. In the midst of the World War, in which the United States engaged under the slogan "Saving Democracy," this eminent American philosopher and educator raised the question of choosing the most fruitful interpretation of democracy for society and the public school. The quest for democracy is still a major problem. In what degree does Dewey's emphasis upon "the extent in which the interests of a group are shared by all its members" accord with the need for each member's having understanding and accepting responsibility?

11. Trow, William C., *Educational Psychology*, Boston, Houghton Mifflin Company, 1931, Chap. IV. The psychological origin of mental adjustments like projection and phantasy in thwarting, the nature of the dissociation and retreat that follows, and the remedial steps leading the victim to face reality are treated clearly and briefly. Compartmentalization is discussed under the significant title "Bulk-head." Notice how these mental mechanisms originate in evasive language adjustments and how language may be used in intelligently overcoming the difficulties.

12. Lynd, Helen Merrell, "Parent Education and the Colleges," *Readings in Educational Sociology*, E. George Payne, ed., New York, Prentice-Hall, Inc., 1936, Vol. II, pp. 238-249. A vivid criticism of the neglect of adequate parent education at both the collegiate and the pre-collegiate levels. In the same volume, a broad survey of the parent-education movement is presented briefly by a competent authority: Lindeman, Eduard C., "Sociological Aspects of Parent Education" (pp. 268-275).

13. For the significance of "adjustiveness" in a modern democracy see Chapter II, the section entitled, "Informality and Adjustment in a Democratic Society," p. 45; also Chapter IV, p. 79.

14. Dewey, John, "A Sick World," *Characters and Events*, New York, Henry Holt and Company, 1929, Vol. II, p. 760. (This article is reprinted from *The New Republic*, June 24, 1923.) These two volumes include Mr. Dewey's popularly written essays in criticism of current events in America, Europe, and Asia. Many a conflict within individual characters is also revealed.

15. Mitchell, Wesley C., *What Veblen Taught*, New York, The Viking Press, 1936, pp. xviff. This volume presents in the most available form "the swift wit and slow irony" with which Thorstein Veblen cut sharply into the confusions of American thinking. Although Veblen wrote from the standpoint of business economics, it turns out that the programs of educational institutions are derived from similar conflicts between ideas. According to Veblen's *The Theory of the Leisure Class*, the successful businessman's high evaluation of "conspicuous leisure" results in time-wasting college courses. Beneath Veblen's cartoon-like exaggerations are many significant suggestions for the serious student of American life and education. (A low-priced edition of *The Theory of the Leisure Class* is published in the Modern Library series by Random House.) The student of education must face the fact that public schools and teacher-training institutions as well as private schools and colleges are ultimately controlled by lay citizens, who are represented in large

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measure on governing boards by persons vigorously engaged in business. What bearing do these facts have on the social education of children and youths?

16. Dewey, John, *Interest and Effort in Education*, Boston, Houghton Mifflin Company, 1913. This little book continues the argument presented by the author in the *First Yearbook of the National Herbart Society*, published in 1895. In Dewey's *Democracy and Education* (New York, The Macmillan Company, 1916), the ramifications of this conflict may be traced by following the numerous references in the index under "Interest." The student is warned that the word *interest* as used in the chapters of the present book often presumes some understanding of the point of view developed by Dewey. For a direct application of this conflict between the advocates of "effort" and the proponents of "interest," see: Martz, Velorus, "The Function of Difficulty in the Learning Process," *Educational Administration and Supervision*, March, 1932, pp. 201-215. Martz argues that "difficulty never enhances the attractiveness of a situation" nor spurs one to greater effort. He shows that "the amount of effort we are willing to put forth is determined by interest, not by difficulty." Such studies open the way toward an understanding of the democratic principle of shared interests and shared responsibilities.

17. Bode, Boyd H., *Fundamentals of Education*, New York, The Macmillan Company, 1921. This educational philosopher also delves into one conflict after another: theory versus practice, intrinsic values versus instrumental values, the various interpretations of "democracy," and the diverse meanings of "self." Particular attention is called to Chapter V, entitled "Interest, Duty, and Effort," because Bode's emphasis upon "remote interests," contrasting with the older view of "duty," needs to be joined with his interpretation of "democracy" as "the sharing of interests." *Modern Educational Theories* (New York, The Macmillan Company, 1927) by the same author also deals with conflicts of school practice in a fundamental way. Reading either Bode or Dewey will take the student deep into the most serious problems of American education—problems that must be solved if progress is to occur.

18. Bode, Boyd H., *Democracy as a Way of Life*, New York, The Macmillan Company, 1937, Chap. IV. In this small book the significance of democracy is set forth vividly. This chapter on "The Meaning of 'Free and Equal'" discusses the application of democracy to community living, reaching the conclusion (p. 48), "From

the standpoint of democracy the fact that a community is a community of interests is the most important thing about it." The student will further his understanding of democracy by reading both Bode and Dewey.

19. For a criticism of the instinct theory of heredity, see Chapter VII, the section entitled, "Controversies over Human Instincts," p. 147.

20. Dewey, John, *Experience and Education*, New York, The Macmillan Company, 1938, Chap. I. In beginning this chapter on "Traditional and Progressive Education," Dewey warns us against mankind's fondness for formulating beliefs in terms of *Either-Ors*, because argument between opposite extremes seldom leads to constructive development. Not mere compromise is advocated but a deeper study of the underlying conditions.

CHAPTER II

The Informal School: Its Three Sources

Anyone who steps into a modern elementary school to watch the children's activities will be struck by the school's informality, especially when he compares the scene with his own experiences of a decade or a generation earlier. The seats are no longer screwed down in rows separated by the straight and narrow aisles through which he may have passed back and forth to his recitations. The visitor sees one child going here and another there, each pursuing independently his own particular concerns. Other youngsters are grouped around a long table working and talking together. Scattered about the room are still other individuals busily engaged at their own desks with materials and possibly with books. At first the visitor may have difficulty in locating and identifying the teacher, who in former days was so easily found seated securely in autocratic isolation at a paper-piled desk on the rostrum overlooking the classroom. The teacher of today may be sitting, for the moment, inconspicuously in one corner as a member of a committee, or may be closeted deeply with a boy—not holding forth in an old-time disciplinary lecture—but trying to extract from the closet's depths some piece of equipment that has suddenly become an imperative item in the pupil's project or activity. Before the visitor has observed the variegated

scene for half an hour, he may become alarmed over this radical shift away from the prim formality of an earlier day. On the other hand, he may enthusiastically acclaim the new freedom as an evidence of progress. The serious student of education, however, will sense a problem: "Are schools moving in the right direction?" "How far may informality be encouraged without sacrificing personal discipline and thorough training?" Or he may inquire still further, "What underlying causes have produced these marked changes in school procedure within so brief a period?" "What are the fundamental sources of conflicts, such as that between the formal and the informal school?"

Individual Ideals and Economic Forces

Either of two contrasting answers is commonly offered when questions are raised concerning the causes of any pronounced change in school programs. One answer is that some individual leader of thought has profoundly influenced teachers and school administrators. For example, John Dewey may be cited and the credit (or blame) for the informal school placed primarily upon his shoulders. Certainly, The Laboratory School of the University of Chicago as conducted under Mr. Dewey's direction during the years from 1896 to 1903 was the outstanding early demonstration of informal elementary education.¹ Such an explanation may be widened to include a group of workers who have interpreted and supported the proposals of the great leader. The answer may be further extended to include a historic series of minds all moving in a similar direction. In this case we may go back to the eighteenth century for Rousseau's protests against formality,² and then move on through the writings of Pestalozzi, Froebel, and

G. Stanley Hall as contributions toward Dewey's proposals and experiments.³ The emphasis is consistently placed upon intellectual leadership by individuals. Schools change whenever a new idea has emerged in some creative intellect and has been communicated clearly to other understanding minds through the spoken and written word. According to this explanation, a conflict arises because a certain individual *differs in his thinking* from his predecessors and contemporaries. For instance, the student of education often meets a conflict between his childhood experience as a pupil in a formal elementary school and the informality advocated in his professional courses.⁴ Modern society is full of conflicts between old customs and new ideals.

The contrasting answer maintains that the fundamental sources of educational change and of the resulting conflicts lie primarily in those tremendous economic forces which have so radically modified the life of civilized peoples: for example, the introduction of steam and steel, electrical power, and motor transportation. Neither social insight nor comprehensive economic planning underlies them. For illustration, Mr. Henry Ford did not design a cheap automobile for the purpose of making the social changes that have resulted from his industrial venture. Although it is difficult to explain adequately the origin of these uncontrolled forces or to trace their effects in detail, the proponents of this answer insist that the changes which occur in group life are due primarily to such blind forces.⁵ As society moves forward (or backward) under these economic thrusts, it is obvious that the school must change likewise. A period of war, for example, may greatly alter life in school as well as outside by regimentation of action and by narrowing the ideals stressed. This view emphasizes the helplessness of

educators, for the ultimate outcome of modern technology's pressure upon this generation is not only unpredictable but apparently beyond human control. Thus, the second answer stresses the massed blindness of social change, in contrast with the individual foresightedness offered in the first answer as the source of the new school program. Most people are inclined to accept one of these answers and to discount the other. Some of us glorify the potency of ideals and of intellectual leadership, while others acknowledge only the wholesale drift of uncontrolled economic trends. This preference becomes important because our way of interpreting the past and present determines in so large a measure what methods we will choose in planning for the future. The choice between the two explanations constitutes another area of conflict.

Health Education and Informality: An Illustration

In considering how valid either answer is when applied to the trend toward informality, we are led into a study of the development of physical training and health education. The physical freedom which characterizes informal schools, as contrasted with the rigid sitting of the formal classroom, has been supported by changed views concerning child health programs. We may put the original question to the health educators: Did the present emphasis in schools upon healthful recreation and bodily freedom derive its impetus from the ideals of certain leaders, or from economic, industrial, and social movements entirely beyond the control of schoolmasters?

Years ago most American youngsters got up in the morning early enough to climb into the haymow and throw down feed for the livestock or to do other vigorous chores about

the barn and house, then eat pancakes and sausage or an equally substantial breakfast, and finally trudge a mile or more to school. Under such conditions teachers hardly deemed it necessary to take any of the pupil's time from books to have them climb up gymnasium ladders or leap over wooden horses. How different now is the physical routine of the majority! There are multitudes in both country and city whose morning exercise before school is limited to stepping into a motor bus and then out again at the end of a more or less sedentary ride. Other multitudes in congested cities walk a few short blocks to a public school. So motorization—which certainly was not planned by any educational theorist—has placed new responsibilities upon the school. Not only have the motors eliminated many common forms of exercise, but they have greatly modified the play spaces. As the speeded motors have made danger zones of our city streets and country roads, the schools have been forced to provide gymnasiums and playgrounds. It is evident that the social-economic-industrial condition of motorization looms very large as a source of educational change in this instance.

The Influence of Scientific Data

When the student of education pursues further the relations between motorization and health education, and in turn the relations between health and informality of school procedure, he finds other sources of change which are by no means so unintelligent and uncontrolled as motorization. No one would dare to maintain that the emphasis upon physical education, which motorization made necessary, produced immediately and directly a free, informal school. Indeed, the formality of the recitation procedure and the

factory standardization which accompanies motorization agree in their emphasis upon restricting physical activity to prescribed, uniform, precise movements. A different factor must be credited with rescuing children from a military type of physical drill. Nor was the urgent and eloquent call for freedom made by the social idealist sufficient. A demand must be reinforced in more substantial ways in order to appeal effectively in an America devoted to mechanical progress. Fortunately, the findings of the scientists made such an effective appeal. Science, which is widely revered as the source of industrial progress, includes in its broad scope not only physics and mechanics but also biology and physiology. The scientific study of child development founded upon a sound biological basis demonstrates that happy, informal play, often without special apparatus, produces fuller health than does formal exercise, even with elaborate equipment. But the science of health demands further that the free-play spirit shall not be restricted to a scheduled time of more or less violent exercise inserted somewhere in a day of tight seat-sitting with no legitimate relief other than marching up to class and back. Eventually the scientific fact that children can think more effectively when muscular strains are relieved by free, natural movement throughout the day penetrated the school system from the classroom teacher to the superintendent. Gradually the great bars of rigidity and silence have been pushed down by the persistent impact of scientific data.

Relations of the Three Sources of Conflict

Note that the illustration has brought forth a third fundamental source of change in school programs. The findings of science may be distinguished from the educational pro-

posals of the great intellectual leader on the one side, and from the blind forces of industrial and economic movements on the other. When we have arranged in the order of increasing intellectual quality these three types of casual factors—(1) economic trends, (2) scientific data, (3) social ideals—and have distinguished them from each other, we must recognize also that they are always intimately related to each other. Scientific data underlie economic trends. Without scientific findings in the fields of electricity and mechanics, motorization would never have occurred. Economic trends thrust certain problems into the foreground for scientific investigation. The growth of trade, for example, produced an urgent need for rapid transportation; hence, inventors turned their attention to motors. The modern social thinker scarcely can present ideals worthy of consideration unless he understands the scientific facts and the economic situations in the face of which his social ideals must operate. Conversely, new areas of scientific investigation, such as the educative and physical effects of informal living, may well be mapped out in the light of new social ideals. It seems impossible to find any social or educational change that has not been modified for good or ill by factors derived from all three fundamental sources, although it might be extremely difficult to trace the particular effects from each source. In spite of the intimate relations among the three sources, the student is likely to find any problem of modern education more fully illuminated if his survey includes the three angles: the ideals of individual leaders, the scientific data, and the economic trends, which together have brought the problem into its present form. A further consideration of the relations among these sources will then add to one's comprehension of the change being studied.

Individual Differences and Informality

Attacking the question of the origin of the informal school through a different approach, and testing again our classification of fundamental sources, we notice that a school is called "informal" not only because of the freedom in movement observed but because of the diversity of activity. The visitor sees different children engaged in quite different activities at a particular moment. He notes that one youngster is drawing a design; another is writing a letter; a third is examining globes and maps; a fourth is constructing a guinea-pig cage; a fifth is comparing statements in two histories; a sixth is working at a simple arithmetic problem; while a seventh is delving into a more complex phase of arithmetic. Apparently, provision for individual differences as well as for health education has promoted informality. The demonstration that wide differences in general ability exist, which can be credited to the scientific-data source, has brought to the teacher a realization that different pupils are able to proceed at different rates. So, unless a formal, fixed, assignment-recitation scheme interferes, the pupils will be found working at various levels in the same subject. Furthermore, the differences in special abilities and interests will lead toward great diversification of activities.⁶ The acceptance of scientific data concerning individual differences has indirectly supported the informal procedure.

If we continue to seek the sources of diverse interests among children, we shall discover other causal factors in addition to those individual biological differences that science reveals. We shall see how economic conditions outside the school play their part again in at least two ways. First, modern civilization provides through the multiplicity of its

productive activities a much wider variety of materials and tools than does a primitive society with its few utensils and simple methods of getting food and shelter. This wide variety of materials and tools suggests to the youngsters of today opportunities for work in such diverse fields as mechanical construction, story writing, animal rearing, picture painting, and storekeeping. The small youthful society of the school takes over these various activities from the larger adult society outside. Second, society more and more insists that each youth shall fit himself for the place he can most adequately fill in the industrial world. As the places or jobs become scarcer, society rudely, and almost blindly, forces the individual to adjust himself to a niche which may be in some degree appropriate for him. Thus, social changes as well as scientific facts emphasize the need for variety in public-school programs. The variety of activities in turn gives a measure of support to an informality which is akin to the ways of the workaday world.

The Democratic Ideal and Informality

Do the social ideals of educational leaders favor the development of individual differences and, thereby, the informal school? Certainly the philosophy of democracy has played a large part in this development. In the first place, the American doctrine that a boy was not bound to follow the trade of his father, in the eighteenth century marked a great step away from the old autocratic custom of Europe and toward freedom to develop individual differences. Today the democratic emphasis upon the right of the individual to choose his own calling may be undergoing a metamorphosis as "democracy" is redefined in more social terms. According to one way of recent social thinking, each indi-

vidual should be guided into the kind of work through which he will share most fully in community interests, contribute most to the common goals, and share liberally in society's resources. Although there is grave danger that an overemphasis upon the benefits to the state may endanger the free life of the people whom it is supposed to serve, the representatives of the people must plan carefully for a social organization in which diversity of activity will support the degree of informality necessary for effective production. Even though the shift toward informality may not always travel hand in hand with an older individualism, it is evident that the broad emphasis upon individual differences receives support, like the health education movement, from all three sources—scientific data, economic trends, and social ideals. So the three kinds of influence already mentioned appear to be in constant interplay beneath the ever-changing surface of the school activities which we observe.

Opposition to Informality

The intelligent reader who has had experience with the American public schools either as pupil, teacher, or parent will raise the question, "Are there no forces which demand formality, or at least place limits upon informality?" Certainly there are. Let us cite two examples.

Out of the flux of industrial development and nationalistic competition for economic security have come political organizations which have grasped dictatorial power. Since democracy and dictatorship are so extremely different, the centralization of authority which emerges from the latter form of political organization seems bound to restrict public schools to formal procedures at least in certain functions. There is likely to be much superficial regimentation, such

as a uniform salute, a uniform oath of loyalty, a uniform dress, or at least a shirt of symbolic color. These superficial requirements may not greatly increase formality during much of the school day, but a thoroughgoing dictatorship does not stop with these superficial regulations. The dictator will insist upon children's learning and accepting his political theory and his interpretation of history—even his explanation of science. Such requirements restrict in considerable measure the freedom of pupils and teachers and narrow their responsibilities, thus indirectly curbing the trend toward informality. Whether this political movement is a temporary, emergency phenomenon resulting from divergence between older forms of social organization and the trends produced by mechanical invention, or whether dictatorship is to become a long-standing type of governmental structure, the hard fact of conflict between dictatorship and the adjustive informality that democracy sponsors must be faced. The resolution of democracy's conflicts as they arise may prove to be the strongest safeguard against any drift toward dictatorship.⁷

The American Tradition of Work

A more genuinely American check upon extreme informality in the school is derived from our tradition of hard work for everyone. When a public school becomes so informal that the visitor gets the impression of a play school, the thoughtful parent may voice his objections by calling the teacher's attention to the close relations between work and democratic living in America.

"Everybody works!" has long been a keynote of American democracy. In the early settlements of our Atlantic seaboard, any claimants of European leisure-class privilege as

well as less privileged colonists were faced with the alternative, "Root hog or die." The necessity of working became transformed gradually through rationalization into a strong belief that industriousness is a moral virtue. Our esteem of the hard worker has been regenerated again and again in the midst of pioneer hardships as the American frontier moved westward. Thus, industriousness, rightly or wrongly, has survived as an ideal in spite of the decades of great national wealth and of piled-up private fortunes. Our multimillionaires have been regarded commonly by the American people as hard-working captains of industry, and so have shared in the hero worship accorded intrepid explorers. Even the well-established custom by which women may escape from work by marrying wealth has been undermined by our American working women. A "leisurite" in the United States has been forced to live outside of the American tradition hiding his shame rather than boasting of his good fortune. Again, in periods of widespread unemployment, the popular view that every man, woman, and child should be at work has apparently grown stronger in many minds. Under the influence of this work tradition, the public school has provided a place for children to work at studies until they are sufficiently matured and trained to fill their places in the outside working world. In school and out, our democratic tradition of "Life, Liberty and the pursuit of Happiness" set forth long ago in the Declaration of Independence is still interpreted as a *chance to work*—not a chance for irresponsible play.

When the American public school began its career, it accepted a hard-work theory. According to the predominant psychology of those early days, the chief aim was to promote mental discipline through strenuous effort, notably in

mathematics and the languages. It was assumed that while the school was developing this mental ability, it would strongly reinforce the thorough industriousness so insistently cultivated in the homes of the period. When an American parent who harbors this old psychology supported by a daily experience of hard work walks into an informal schoolroom, he may become a bit suspicious. His apprehension may not be much relieved if the new teacher thoughtlessly replies to his inquiry, "Oh, we don't teach reading any more. We just have activities." The modern school must deal more wisely with the American tradition of work before it can attain the success which comes only with the support of parents and taxpayers.

Can Hard Work and Informality Be Harmonized?

The teacher who sees value in informal methods faces the task of demonstrating clearly to the community that informality and hard work do occur together under skillful management. Dewey led the way by resolving the conflict between the proponents of "interest" and the adherents of "effort."⁸ In addition to clarifying the relations between these apparently contradictory terms, he brought interest and effort into happy co-ordination in the Laboratory School, where children learned much by working hard on a project at a bench rather than by merely sitting at a school desk and listening to or reciting for the teacher. Today the modern teacher may invite the parents to join with the children in experimenting in school activities in which vital interest may lead into vigorous effort and learning may proceed effectively in the midst of work that is neither very formal nor very bookish. Teachers, parents, and children may discover together what degree of formality or infor-

mality under their conditions is most favorable for learning. As parents come to understand more clearly the underlying principles of modern democracy, the energy of opposition, which is based upon suspicion of freedom and interest because these conditions have been so long associated with play, is being turned into wholehearted support.⁹ Teachers and parents are realizing also that the older American tradition narrowed the meaning of work toward mere money making. As a friend writes, "Anything altruistic or aesthetic has been considered effortless." This limited interpretation is in direct conflict with the purposes of the informal school. Consequently, the American view of work requires a revision that will bring it into alignment with the informal methods appropriate for democracy.¹⁰

As students of education come to appreciate the strength of the forces which lie behind the trend toward informality, they will realize that this trend cannot be ignored as if it consisted of temperamental and temporary divergence by self-styled progressives from an old and stable program. Economic changes, scientific discoveries, and intellectual leadership all exert pressure in the direction of greater flexibility. On the other hand, the objections to extreme informality cannot be disregarded; for they are both sound and strong. The American tradition of work, and even dictatorship, must be considered. Formality cannot be cast aside as though it were just an old, outmoded notion. Since the conflict between formality and informality within the school and in life outside as well is bound to continue, we are concerned now to inquire seriously in what direction these contending forces are driving our educational system. The fact that change is occurring is no guarantee of actual progress. Which trend is really valid and desirable? Is a

flexible program most helpful in child growth? Will informality in the school promote most adequately the socialization of the community and the nation? Shall we try to redirect the present confusion into a compromise between formality and informality? The facing of such problems involves a closer consideration of, first, the fundamental nature of the child, and second, the predominating characteristics of modern society.

Informality and the Child as a Unitary Organism

The pertinent fact about the child is that he is at all times a unitary organism so constructed that every part and every activity is affected in some degree by every other part and every other activity. Biology and psychology demonstrate that memorization of facts and comprehension of ideas are affected more or less even by the physiological processes of digestion—easily noted in cases of poor digestion—and by the emotional attitude of fear, courage, or happiness. The wise teacher watches closely the emotional life of the child. She realizes the importance of understanding why the child is pouty, frightened, obstreperous, earnestly interested, or well adjusted. Since the emotional undercurrent determines in large measure how effectively school learning will proceed, the teacher investigates the home background of each child to determine what conditions outside the school, as well as inside, make him behave as he does. When the teacher discovers that an undesirable home environment is producing a retarding emotional condition, a remedy is sought which may be applied in the home, or, if this is not feasible, a counteracting situation may possibly be produced in the school. Thus, the teacher's functions are broadened to include planning for emotional development and the es-

tablishing of constructive behavior habits as necessary means toward promoting scholastic achievement and a wholesome adult life. These outcomes scarcely can be achieved through a narrow, formal, recitation procedure. Apparently, the fact of physiological unity and the need for psychological integration of the individual call for considerable breadth and flexibility in the elementary-school program.

Notice that such an informal program is required if we accept the common American view that the public school is responsible to society for teaching the child certain skills in reading, writing, language, and arithmetic together with certain knowledges in scientific and social studies. For biological science forces us at once to relate this demand for skill and knowledge to the fact that effective methods of teaching involve dealing intelligently with each child as a whole organism—social, emotional, and physical as well as intellectual. If political trends point in the opposite direction toward a formal program, the student of education must *face* the inconsistency between the political opinion and the scientific finding, and must do his utmost to *resolve this conflict intelligently*.

Informality and Adjustment in a Democratic Society

Turning now for a brief look at the predominating characteristics of modern society, we see that our present civilization requires increasingly complex social adjustments. The youth of today must face a far wider and more varied accumulation of life problems than ever before. No intelligent person who has lived through the last decade need be told that the twentieth-century world makes startling jumps from one complexity to another. Who among us does not find difficulty in understanding our swirling society sufficiently to

gain even a meager degree of security therein? From the standpoint of public education it is evident that we are responsible for providing youth in our times with a much higher degree of adjustiveness than was needed in the relatively simple life of the primitive tribe or in the slow-moving medieval world. The rate of change is now so great and its direction is so uncertain that one of the chief requisites of life is adjustive control over novel situations. In terms of the old school subjects, the child should now learn how to find the spelling of new words—the use of the dictionary rather than mere memorization of spelling lists. He must learn how to read new material at sight, again depending to some extent upon the dictionary, but going beyond dictionary definitions to interpret words in a special context. Arithmetic must emphasize ability to solve new problems. The social studies should become a means of controlling the future, reaching beyond a mere knowledge of the past and even beyond an understanding of the present.¹¹ In other words, a broad and flexible program of public education is made necessary by the rapidity of social change.¹²

Also, we must remember that many children come to the public school from homes in which antiquated customs and narrow prejudices prevail. A single classroom in an American city often contains children who carry in their speech and manners the conflicting traditions of ten or more different national cultures. Every classroom, whether urban or rural, is a center of conflict for diverse methods of home training and for divergent views of economic and moral questions. The school must be something more than a melting pot of diverse cultures. Perhaps the fire of joint activity with the intellectual understandings shared therein will produce the social warmth needed to amalgamate the group.

It appears, then, that the public school is pressed by economic forces, additional discoveries of science, and the creation of new ideals to do many different things for each child. Furthermore, many of these functions must work together at the same time in a smooth, sustaining relation to each other. A fundamental problem is the avoidance of undue conflict among the diverse functions.¹³ Individual abilities and social attitudes both need cultivation. Sensitive, aesthetic appreciations must be developed without too much interference from the hard, critical, scientific thinking which is also essential. Insistence upon speed and accuracy in numerous skills must be tempered to meet the relaxation demanded by mental-hygiene programs. Even these pairs of contrasts may seem to present insuperable conflicts. The problem of successfully resolving not only these three conflicts but in addition a much greater number of complex interrelations among these six functions may look like an impossibility to many thoughtful teachers. A still greater burden may be added by political insistence upon formality in certain fields.

Yet, if no solution of such conflicts can be found, then civilization, as we know it, appears to be doomed. When human diversity and social complexity outrun the possibilities of unity and integration of the individual, of the small society in the school, and of the larger society beyond the school's confines, human life becomes only a brief and fearful waiting for the actual going-to-pieces of the individual and the break-up of society.

Some of us, perhaps, still have faith that small, youthful groups may discover under skillful guidance how to develop both the individual integration and the group unity essential in the democratic sharing of common interests and

mutual responsibilities. We hope, further, that this individual and social integrity may be communicated gradually to the larger groups of modern adult life. Thus, we gather the courage to face the broader task of education in a democracy with all its difficulties, believing that a definite recognition of the problem of conflicting functions is a first step toward its ultimate solution.

NOTES

1. Mahew, Katherine Camp, and Edwards, Anna Camp, *The Dewey School*, New York, D. Appleton-Century Company, 1936. This accurate description of the aims and methods of the Laboratory School of the University of Chicago written by two of the teachers in the school forms the basis for an extremely significant comparison with the better public schools of today. In one generation elementary schools have moved substantially toward the practices and ideals of this pioneer experiment under Dewey's leadership. The difference between the thinking and action of teachers in the Dewey School and that of teachers generally has been a source of conflict. The student of education must judge to what extent this conflict has resulted in progress.

2. Eby, Frederick, and Arrowood, Charles Flinn, *The Development of Modern Education*, New York, Prentice-Hall, Inc., 1937, Chap. XIII. An interesting account of the life and ideas of Rousseau written particularly for the undergraduate student of American education. The chapters devoted to Pestalozzi and Froebel also promote an understanding of the early interpretations of naturalism and evolution.

3. Thayer, V. T., *The Passing of the Recitation*, Boston, D. C. Heath and Company, 1928, Chaps. I-V. An able discussion of the contributions and limitations of Rousseau, Pestalozzi, Froebel, and G. Stanley Hall in the movement toward making learning a more active process, and incidentally less formal. Further study in the history of education reveals the nature and depth of the conflict among these leaders and the ideas prevalent in the generation of each.

4. Myers, Alonzo F., and Williams, Clarence O., *Education in a Democracy*, New York, Prentice-Hall, Inc., 1937, pp. 53-57. The

student may well enlarge his comprehension of the movement toward informality by adding to his personal experience by reading this division of elementary education into six stages of development. In the Myers-Williams text, Unit I on "Our American School System" and Unit II on "Influences Affecting Our Schools" present briefly the historic situations out of which many of the present conflicts in education have emerged.

5. Beard, Charles A. and Mary R., *The Rise of American Civilization*, rev. ed., New York, The Macmillan Company, 1933. While this history of life in the United States attributes much to individual thinking and leadership, the play of economic forces is depicted forcefully and vividly. The index will direct the student to the pages devoted to educational changes, and further reading will lead to a fuller understanding of the fundamental economic causes of many conflicts which are affecting the public schools.

6. Freeman, Frank S., *Individual Differences*, New York, Henry Holt and Company, 1934. A clarifying discussion of the causes underlying individual differences, including inheritance, environment, race, sex, and age. No one can envision a practical program for democracy unless he appreciates the strong challenge presented against the idea of equality by the scientific data on individual differences, and the reinterpretation of "liberty" necessitated by the diversity of human beings. For a briefer analysis by the same author, see: *Educational Psychology*, Charles E. Skinner, ed. (New York, Prentice-Hall, Inc., 1937), Chap. XV, "Individual Differences: Their Nature and Causes."

7. Chamberlain, Leo M., *The Teacher and the School Organization*, New York, Prentice-Hall, Inc., 1938, Chap. XIV. This chapter on "Textbooks and Teaching Materials" will reveal the present situation in the United States with respect to state adoption of textbooks—a policy that may represent dictatorial opposition to the informality desired by many teachers in the several states.

8. See Note 16 to Chapter I, p. 28.

9. Kallen, Miriam, *A Primary Teacher Steps Out*, Boston, Lothrop, Lee, and Shepard Company, 1936. The teacher explains how with a group of more than 40 children in the crowded classroom of a formal school system active informality was gradually attained and at the same time the demands of the prescribed course of study were met and the co-operative support of the parents secured. The "Introduction," by V. T. Thayer, significantly states that the lives of pupils are unified by such a program as they could not be by the

traditional curriculum. Are the conflicts of children resolved through discussion or in the midst of activities? The bibliography of additional readings appropriate for parents, teachers, and children is helpful.

10. For a presentation of the conflict between the money-making interpretation and the interest in quality workmanship, see Chapter III, the section entitled "Workmanship versus Mark-Getting and Money-Making," p. 53.

11. Counts, George S., *The Social Foundations of Education*, Report of the American Historical Association Commission on the Social Studies in the Schools, Part IX, New York, Charles Scribner's Sons, 1934, Part III, Chap. I. This chapter on "The Trend of the Age" summarizes the factors in American life that are especially significant for the new democracy and the public school. The book as a whole deals with fundamental changes in education made necessary by the social trends outside the school. The author insists that the teachers of America's children must come to understand more fully the basic forces and tensions in American life.

12. For a further explanation of the term "adjustiveness," see Chapter IV.

13. For an analysis of conflicting methods in the public school, see Chapter XI.

CHAPTER III

Confusion Over School Marks

Thinkers who are deeply concerned about the maladjustments and injustices which they see in American life urge the public schools to make "a direct attack on the discrepancies and contradictions which lie at the heart of our cultural heritage. . . ." ¹ They believe that bewildering conflicts muddle the thinking of most men. Take a few common cases. The businessman who talks most about competition as the life of trade also insists that businessmen must get together to keep prices up. The farmer who abhors governmental regulation gladly accepts Federal adjustment money. The parent who demands that his child have freedom in the school may be the first to criticize the teacher for failing to maintain discipline. As long as such contradictory attitudes becloud our thinking, how can we make any progress in democratic living? The confusion is accentuated by the fact that most people are but vaguely aware of the conflicts which thrive among their own variegated notions. The exposure of these contradictions becomes, accordingly, a major responsibility of the public school in order that the younger generation may see more clearly the next steps to take in social reconstruction. Before any teacher can carry a full share of this responsibility, he must unveil his own mental contradictions, which are

in most cases conflicts that likewise confuse his pupils and their parents.

In the two preceding chapters the conflicts and confusions of children, adolescents, and adults—of parents, teachers, and pupils—have been illustrated. The first chapter depicted the origin of conflicts within the individual as derived from diverse language experiences in social groups. The second chapter suggested the sources of these diverse ideas in social changes produced by the related impacts of socially blind economic forces, socially oblivious scientific discoveries, and socially concerned and intelligent individual ideals. Before delving into the psychological conflicts that make schooling so confusing, we may well consider a broad problem that will illustrate the relations existing between the difficulties of school practice and the difficulties of everyday living in a complex economic society. Evidently, any attack that is merely a broadside against the multitude of contradictions in common thinking only adds to the confusion and deepens the sense of helplessness. The first step, then, is to select an area of confusion that is likely to open the way for a thoroughgoing exposure of conflicts and, thereby, for a comprehensive reorientation.

Although a number of fundamental conflicts offer themselves as worthy of the first attack, the problem of school marks has a way of bobbing up in a disconcerting manner right in the middle of discussions which are supposed to be more profound. Whenever teachers and parents begin to plan for a liberal reorganization of school procedures, a conflict between the forward-looking school program and the prevalent marking system seems bound to arise. As the group approaches the adoption of a new educational proposal, such as an activity program or a unit method, some

earnest soul is almost sure to raise the objection that the novel proposal is impractical. This assertion generally means that the proposal conflicts in the mind of the objector with the existing examination and marking system. When thus challenged, the group of parents and teachers often divides into two opposing factions. Usually, the majority, being "practical-minded," side with the objector in abandoning the effort to create a new kind of school. A minority, who are regarded by the majority as visionary idealists, continue to hope vaguely for a school in which children will never be given marks or required to submit to the hardships of examinations. Instead of slipping into either of these extreme attitudes, which may be merely evasions and retreats, shall we not attempt to reduce the confusion which pervades the subject of school marks?

• *Workmanship versus Mark-Getting and Money-Making*

Every teacher, parent, and pupil realizes more or less clearly that there is a difference between "getting marks" and "becoming educated." We know that occasionally a pupil fools his teacher through some tricky short cut into giving him a higher mark than his work merits. We note at times a difference between finding which answer the teacher wants and acquiring an understanding of the problem under consideration. We recognize the danger of overemphasizing marks because we realize that such stress actually may destroy the confidential pupil-teacher relationships on which real education can be built. While everyone who has considered seriously the improvement of our schools has no doubt felt the conflict between getting marks and getting understandings, few, perhaps, have noticed how closely this conflict within the school resembles one that pervades the

business world. In commercial life, "money-making" corresponds to the "mark-getting" of the school. This money-making interest seems frequently to be in conflict with what has been called "the instinct of workmanship."² The workman or manufacturer finds that he can make more money by slighting quality of workmanship or material—incidentally, substituting superficial decoration in the article offered for sale. The bigger potatoes are put on top of the basket, or a shiny coat of paint on the auto covers thin metal. Both the school child and the working adult are tempted day by day to neglect high-quality workmanship in favor of something else—marks for the one, money for the other. These conflicts are so similar that a brief consideration of the economic problem may throw light upon the confusion in education.

Economists have pointed out the more or less constant conflict in the commercial world between two contrasting kinds of work activity. One kind, so they say, consists in making goods, while the other is commonly called making money. The fact that these two diverse aspects of industrial life are both called "work" tends to conceal any divergence of their aims, thus confusing the businessman and perhaps the educator also. It is hard for many persons to realize how easily profit-making can divorce itself from quality workmanship. An adequate realization of this conflict is especially difficult for those who have grown up in a situation where workmanship and industriousness are continually emphasized, as is the case in a farming community and to a large extent in a manufacturing center. We are inclined to think of the able, industrious farmer who makes money through raising wheat or milking cows. The farmer's income seems to depend directly upon the quantity and

quality of goods made, such as wheat or milk. Or we think of the skilled employee in the automobile plant who shares in the making of automobiles, and thereby makes money in the form of wages. In the same plant the shop superintendent makes more money in the form of a salary through participating in the industrial management. The president of the automobile corporation participates in the financial management, for which he will probably receive a bonus in addition to a salary, at least in prosperous times. Likewise, salesclerks and managers in stores, railroad men, professional men, teachers, and bankers are all supposed to perform services which contribute in some way toward making goods, incidentally resulting in making money. These two aspects of life seem at first glance to be tied together as though each increase in money-making were produced directly by an improvement in the quality of workmanship.

Yet, among those who have made a careful study of the intricate relations between making goods and making money, very few are willing to maintain that the amount of money made by different individuals is even approximately proportionate to the value of each one's contribution in the complex process of producing goods for all of us. The handler of actual tools and materials often gets starvation wages, while the manipulator of "stocks" acquires a fortune. Americans commonly label certain individuals "money-makers," thereby intimating that these individuals incline more toward those activities that bring personal commercial success than toward those that promote quality workmanship in goods production. Their money-making schemes lead into conflict with productive workmanship, for at times the money-makers block the use of new inventions and at other times close their own factories or compel their com-

petitors to shut down and sell out. In fact, some economists claim that our money-making system, rather than the closing of the frontier or the rise of technology with its labor-saving machines, is the major cause of unemployment in this country, and that unemployment is the strongest evidence of economic breakdown.³ Be that as it may, the confusion in the business world over the relation of money-making to workmanship raises at least two questions for parents and teachers: How can we resolve the analogous conflict in school between marks and workmanship so that the educative activities of children may continue under optimum conditions? How can the home and school prepare youths about to enter the commercial world for the reconciliation of their money-making inclinations with their high standards of workmanship and industry? ⁴

Neither of these questions can be brushed aside easily, for almost all readers will agree that in spite of certain undesirable aspects a marking system of some kind must be used in every public school. Likewise, we recognize that our complex, commercial life scarcely could be maintained without a monetary system of some sort. Nor is it likely, so long as teachers continue to hand out high and low marks, that school youngsters will relieve us of this difficulty by the oft-advocated mental miracle of forgetting that marks exist. Even adult businessmen and teachers are not entirely freed from the money-making motive by inspiring admonitions at the service club or church to keep their minds on higher things. Having emphasized the similarity of the conflicts between productive workmanship in school and society on the one hand, and the persisting struggle for marks and money by hook or crook on the other, we need to notice a sharp distinction between money and marks,

lest an overemphasis upon their analogous relations mislead us.

Contrast Between Money and Marks as Motivating Agencies

Logicians have insisted again and again that reasoning by analogy is dangerous. This warning is particularly apt in the case under consideration, for here the analogy is based upon a common *misuse* of money and marks. Behind this misuse stands the questionable assumption that both children and adults are motivated by "competition" presumably produced in the school by marks and in the business world by money. As we examine this claim, we find certain differences between the motivation of children's activities in modern schools and the stimulation of adult occupations in our common economic life. These differences between marks and money become more and more striking as we rise above the *misuses* upon which the analogy is based.

In order to clarify our thinking in regard to the alleged motivating power of competition for money, let us look back upon American pioneer life when economic relations were more simple and direct. The frontiersman worked hard to provide for his own needs and those of his family. In fact, the whole family worked, though without the stimulus of money. Toil with the axe gave them a log-cabin shelter. They hunted, fished, planted, and cultivated to obtain food. Sheep-tending, spinning, and weaving were pursued day after day to provide clothing. Under frontier conditions the strong motivating forces can be described in direct terms of the essential needs of human life plus social impulses to provide for one's own family and for the occasional visitor as well. Neither monetary reward nor competition with one's faraway neighbor is significant.

Today our thinking about motivation in business life is likely to be confused by the complexity of the money economy in which we are enmeshed. Money has come in as a middle factor which sets off the work from the motive. The work we do from day to day provides money in such forms as wages, salaries, fees, or profits. Our work no longer produces directly the food, clothing, and shelter which we desire and need. Nevertheless, we may still trace the motives of any businessman, farmer, or factory hand—whether his activities result in productive workmanship or in self-centered money-making—to fundamental human needs. We should never stop with the false assumption that the main motive is a desire for money itself. Money is a neutral medium through which a specialized type of work, such as farming or teaching, becomes an agency for satisfying a wide variety of needs quite unrelated to the goods or services produced by the worker. The factory worker may participate in making surgical instruments for many years though he may never be permitted to use any of them nor wish to do so. Yet his surgical instrument-work wage pays for food, furniture, rent, union dues, and insurance at his discretion. The factory worker's motivation is derived from his physical and social needs just as truly as the frontiersman's motivation arose in his needs for the things which he produced directly. Note that the personal needs and desires of practically all public school children and their parents quite outrun the purchasing power of the money earned in the family, so that no miserly attention to money for its own sake can occur. Even saving money by the restraint of desires and the refusal to acknowledge other needs is more often motivated by a hope of old-age and family security than by any worship of money for its own sake.

When we consider the upper-bracket incomes, which run beyond any personal and family needs, we find the motivation to be in some cases a desire for power, but probably more often a direct interest in a successful business enhanced by the multimillionaire's continuous devotion to it during his most vigorous years. Even when money-making dominates, as in tricky real estate deals or in the manipulation of corporation stocks, the motive may be traced to particular appetites for things that money will buy. Without further illustration we may conclude that money itself does not motivate.

In so far as money does stimulate a worker, it operates mainly as a neutral medium for *transferring* to daily work activities motivating impulses with which the work may have no other kinship. The point is that while any worker may be motivated more or less by his interest in the work itself and by pride in his own accomplishments, whatever additional motivation may come through money is *transferred* from concrete needs and specific desires. Instead of the life of trade depending upon competition for money itself, the life of trade has its sources in the high standard of American family life with its electric lights, telephone, newspaper, radio, automobile, variety of foods, and more or less stylish clothing. We should not permit our view of the diverse origins of motives to be obscured by the *mediation* of money in the transfer of this motivating energy. Competition is sharp for the *things* money buys.

The chief reason for stressing the varied usefulness of money as a medium of motivation is that school marks do *not* operate in this way. Marks have no cash value for the public school youngster, unless Dad introduces some special reward in the form of dollar bills or tickets for the show.

Instead of being useful for a wide *variety* of purposes, as money is, the acceptable school mark indicates primarily that through the completion of a certain task the pupil is now *ready* for more difficult work of a *similar* sort. To the extent that the primary purpose of the school mark dominates the situation, the pupil's motivation lies in the school activity itself and his reward consists in his opportunity to pursue further his interest in science, literature, mathematics, or some other field. In so far as such a condition prevails, there can be no serious conflict between the pursuit of marks and the development of quality workmanship in manual arts, social studies, music, or any other area. Nevertheless, teachers have induced conflict by going ahead blindly upon the assumption that marks have cash value and competitive motivation power. The improvement of public education has been retarded because teachers and parents failed to see the profound difference between the marks of the school child and the money wage of the adult worker. Contributing to the confusion of all concerned, teachers have patterned their marking systems upon a wage-scale plan; hence, we turn to consider briefly a few common methods of marking.

Wage-Scale Marks and Competition

Many of us have encountered marking systems in which 100 per cent was the perfect mark, while perhaps 75 per cent was passing and 74 per cent or below meant failure. These schemes have descended upon us from the days when the exact recitation of the textbook was the standard for 100 per cent perfection. As long as each answer was regarded as either wholly right or absolutely wrong, it was easy for the teachers to mark arithmetic, geography, and

history papers upon the percentage scale. Other school achievements, such as skill in writing or in oral reading and even deportment, were forced into the percentage mold in spite of their non-mechanical character and the evident impossibility of reaching perfection in them. Changes in the aims and methods of public education brought criticisms of the percentage system; consequently, many schools abandoned it. The search for other marking schemes has been confused, however, by the pervading influence of the wage-scale type.

The scientific measurement movement shifted the standard for marking from the perfect recitation to the normal or median performance of the group. Standardized tests were devised to assist the teacher, especially in such subjects as writing, oral reading, and English composition, where the assessing of numerical percentages had proved most difficult. The measurement movement seemed to place still greater emphasis upon competition through its demand for the distribution of scores over a wide range according to the normal curve. This wide distribution of scores gave the pupil plenty of room to work for a mark higher than his neighbor's. Furthermore, since a medium grade was given to the average paper, each individual's interest, if he only knew it, lay in having his neighbor's mark relatively low. In addition, the perfection possibility was eliminated by making all tests so hard that even the brightest pupil would fail in power or speed before the end was reached. Indeed, the measurement movement seemed to fit neatly with the assumption that competition produced by a wage-scale marking system is the life of the school.⁵

Another type of marking system which appears at first glance to be quite different from percentage and numerical

scores consists of a series of letters. One common form runs from *A*, representing excellence, through *B*, *C*, and *D* down to *E*, standing for failure. This device differs from the percentage scheme by reducing the number of passing marks from the 26 between 75 per cent and 100 per cent to a mere four. Actually, this series of letters constitutes a five-point scale. The plan permits the teacher to assume that the pupils will all be competing strenuously for the higher marks, apparently assuring maximum stimulation. Although the letter system seems on the surface to be different from numerical marking, it has proved necessary to reduce letters to numerical equivalents before they will function in a school system where pupils are passed and honored upon the basis of averages. In reality this kind of letter-marking system is closely related to its predecessors in having a value range which imitates an employer's wage scale for his workers.

Are not the three systems mentioned above built upon the same assumption, namely, that a wide range between the lowest passing mark and the highest mark will produce strong motivation through competition? Examination of the actual effects of the marking system upon the children in the public schools shows that only a few pupils near the top of the class, who are already interested in the work itself, compete for honors. Even among the brighter pupils many may be found who regard both their marks and their work with indifference, being easily satisfied with mediocre marks and evincing a careless rather than an industrious attitude. Near the bottom of the class may be found those who struggle for the social security of "staying with the gang." The majority of the class who are between these two extremes pursue their work in the comfortable assur-

ance that they are with the crowd. In other words, the main source of motivation *transferred* through marks is the guarantee that the pupil will not be relegated to an unfamiliar and less mature social group. This statement applies to the public-school youngster who is not yet motivated by foreseeing that getting high marks now will probably mean more money later on, and thereby more things than desired. In contrast, mature students in a teacher-training institution may feel quite differently about their own range of marks. The practical student may foresee quite clearly the advantage of *B's* over *C's* in obtaining a position from a school superintendent who takes marks seriously. But the student of education, or any parent, should avoid the psychological slip of inserting in the mind of the youthful pupil his own mature, money-using motives. Marks do not motivate a child as a salary range does an adult, because to a child the chief values of marks lie in permitting him to continue his *present* schoolwork and to remain *now* with his group of school friends.

New Kinds of School Marks

The public schools, then, need a marking system which accords with these two fundamental motives of childhood and youth: first, interest in pursuing a present activity for its own sake; second, the desire to continue comradeship with the members of one's working group. But the reader may feel that for neither of these motives do we need a marking system at all. Youngsters pursue activities in social groups outside of school without benefit of marks. Indeed, marks are dangerous because they may divert attention from workmanship in the activities and may also produce such antisocial attitudes as refusal to help a fellow-

pupil. Before we cast marks aside, however, we may well remind ourselves that a more or less definite standard is still needed to indicate when the pupil is *ready* to go on into more difficult work. The psychological moment for advance into the new level of activity must be marked. With this consideration before us, let us look at certain marking proposals which represent attempts to escape from the competitive emphasis associated with the wage-scale type.

The "mastery" mark is one proposal which tries to meet the needs of the school pupil. This plan merely gives an *M* for each task mastered. The *M* indicates that the pupil is ready for the next task. In general, the mastery device has been connected with individual-instruction procedures which have permitted the learner sufficient time actually to master the task, as opposed merely to "passing" with a 75 per cent or *D* standard, still ill-prepared for the next task. The mastery mark appears to be especially appropriate in a subject like mathematics, in which mastery of certain skills may be measured with relative ease and in which the units of work seem to follow each other in a logically supporting sequence. The mastery mark is not so clearly applicable in a study like history or literature, in which readiness for the next activity depends upon a quality of interest and insight that many teachers would hesitate to label "mastery."⁶ Perhaps it would be sounder practice to replace the *M* with the mark *R*, meaning "ready" for the next school activity.⁷

Another letter mark, the *S* for "satisfactory," has been used in an effort to avoid the competitive emphasis of the *A* to *E* scale. The intention is to indicate to the parent and pupil when satisfactory progress is being made. There arises considerable misunderstanding, however, concerning the standard upon which satisfactory progress is to be deter-

mined. The parent is likely to assume that his child who brings *S* marks from the fifth-grade teacher is achieving the educational norms of the fifth grade. The teacher, on the other hand, may merely mean that this pupil is making satisfactory progress considering his low intelligence or physical handicaps. The child may make satisfactory progress throughout the whole year in the fifth grade and still not be ready for sixth-grade work. We suggest, again, that an *R* mark will more clearly designate what the pupil, the parent, and the teacher need to know, namely, when the youngster is ready for the next educative step.

"Ready" Statements and Workmanship

It is evident that neither the *R* mark nor any other kind of mark is a neutral symbol for an exchange value which can be used in a variety of ways like currency. In our economic system the employer does not mark the dollar bills in the employee's wage envelope with symbols to indicate that this one goes to the grocer and that to the landlord. In the school, however, the teacher who gives the *R* mark must attach to it a quite definite statement of for *what* the learner is ready. In some cases the *R* will mean ready for the next unit in the particular subject. In others it may mean ready for the next grade. At the end of the high-school period a large *R* may stand for readiness to enter a wide range of institutions of higher learning. In a teacher-training institution a certain *R* might be required before the student was permitted to begin supervised teaching, while a still more significant *R* might be the sign of certification for public-school teaching. Surely the fundamental use of a school mark is to point the way quite specifically into *further* educative or vocational activity. The teacher who gives the *R*

mark, or any mark, for that matter, should be looking *forward* clearly and definitely into the pupil's *future* as well as examining his present school achievements.

The *R* or "ready" mark is not entirely a novel proposal, for many schools have been moving in this direction. The modern teacher's emphasis has shifted from the mere distribution of low and high marks toward diagnosing the specific weaknesses of individuals and providing effectual remedies so that the pupil may have an adequate basis for further work. Even when the second-grade teacher passes a child, she sends to the third-grade teacher and to the parents plain statements of the pupil's skills, knowledges, habits, and attitudes which indicate how fully he is ready for the third grade. To prepare such statements, the second-grade teacher must look forward intelligently at least as far as the child's probable third-grade experiences. The lower elementary grades have made considerable progress toward the substitution of a "ready" statement in place of a competitive mark; beyond these early grades, however, most elementary and secondary pupils are still assigned marks upon a competitive scale and are passed upon averages. A 1935 study in New York State showed that 92 per cent of the primary schools studied had revised the form of their report cards within five years, and in the junior high schools revision had occurred in 78 per cent of the cases; but only 50 per cent of the senior high schools had revised their cards within the period. The trend in revision has been from percentage marks toward a four- or five-point scale, with a few schools using the two-point or "satisfactory-unsatisfactory" mark. Ratings upon a number of behavior aspects, using a three- to five-point scale, have replaced the old "deportment" percentages. A few schools have eliminated entirely the old

formal report card and now make their contacts with parents by means of "goal cards" related closely to the mastery mark, or through individual written statements about the child's progress.⁸ This illustration shows that although experimentation with noncompetitive marking systems has only begun, here and there gradual modification of a traditional marking system is shifting the teacher from preoccupation in the distribution of marks over the normal curve to the careful guidance of each pupil toward goals appropriate for him in his school and community life.

Any teacher or school needs to move cautiously in modifying a traditional marking system. The parents and pupils must be led gradually into a fuller understanding of the experiment if their co-operation and support are to be won. The teacher might begin by *adding* meaningful statements concerning the child's progress to the report cards containing wage-scale marks ordinarily sent to the parents. In this way the parents' attention may be diverted more and more from the competitive mark to the more meaningful statement. Later, when the old wage-scale mark is discarded, an *M*, *S*, or *R* may fill the space and satisfy the insidious craving for marks. The actual elimination of all marks and the substitution of plain, comprehensible statements may well progress gradually, beginning with the lowest grade in which the wage-scale marking system is being used in a particular school and moving up one grade each year. By introducing the new plan a grade at a time during a series of years, the parents and pupils concerned will have opportunity to grasp firmly the significance of concentration upon workmanship. Furthermore, the school leaders will be able to determine more wisely how far to go in the modification of the marking system. In a democracy changes in public-

school methods must be accompanied by a re-education of the adult public. One value of such a gradual movement is that it gives the ideal of workmanship time to overcome any impression that the shift in the marking procedure endangers scholarship. It must become increasingly clear to both teachers and parents that the school is really concerned with reducing a wasteful conflict between marks and scholarship.⁹

The School Faces a Competitive Society

The practical person may well remind us at this point that we must face the actual conditions of business life, especially in dealing with the youth who fill our junior and senior high schools. There comes a time during the adolescent period, and in some cases before, when the youth begins to foresee more or less clearly a competitive business world in which he will soon be fighting his way toward "success." Then schoolwork and school marks begin to have aspects of cash value. In many vocations competitive examinations loom up ahead. At any rate, the individual's school record will have a bearing upon his standing in the community and upon his chances of getting a job and of making money. So, although his public-school teachers may postpone or decrease the pupil's temptation to neglect honest workmanship in favor of marks, the conflict cannot be entirely evaded if the school actually acknowledges its relationships with the realities of industrial and commercial life. Each maturing individual looks to the school for guidance in facing the far-reaching economic and social question of whether in his own personal life and in the life of the community, mark-getting and money-making activities can be so planned as to contribute fully toward productive workmanship. While this

problem is the special responsibility of the economist and the social philosopher, in a democracy every individual has an opportunity and a responsibility for participation in its solution.¹⁰ Teachers and parents, moreover, are duty-bound to aid youth by clarifying the issue for each individual as well as by promoting social and economic arrangements that lead to its resolution.

In concluding the present discussion of school marks, the purpose of the illustration to *open* for investigation the confused situation in American education may be emphasized again. Although certain suggestions toward modification of the prevalent marking practices have been made, the conflict between competitive action and co-operative workmanship is by no means resolved.¹¹ One fundamental condition which retards the solution of the problem is the impossibility of restricting the conflict to the schoolroom; the competition-co-operation conflict pervades everyday social and economic living just as confusingly as it does schooling. Whether the school administration or the economic regime or both are to blame for wasteful competition, the main lesson to be drawn is that the more difficult problems of education are likewise problems of social and economic life outside the school. The more clearly the school recognizes its relations with the life of the community, the greater its contribution to social progress. The solution of the more important conflicts involves mutual understanding by schoolmen and lay citizens and their joint action within and without the school. Consequently, every teacher should seek to understand the major issues of social and political life in order to work intelligently with both youths and adults in meeting these problems.

The Meaning of Democracy—So Far

America's major problem today is the creation of a new meaning for "democracy"—a new interpretation that will *work* in the public school and in productive industry. Before considering other conflicts in public education, it may be well to draw together tentatively the ideas about democracy which the illustrations of these three introductory chapters suggest. First, in a democracy each individual has much *responsibility* for evaluating and guiding his own conduct. From the standpoint of marks, this means that the pupil gradually learns to mark himself—to judge the quality of his own work with a view to directing himself in the improvement of his workmanship. The teacher, under the old regime, was an autocratic dispenser of marks or perhaps a referee in a sporting competition. In a more democratic educational system, the teacher co-operates with the pupils in the process of judging activities, although he retains distinct responsibilities for the leadership that has been delegated to him, as does the elected leader of a political democracy. Second, individual creativeness is encouraged in a democracy in so far as diversity may contribute to a full life both for the individual and for the other members of the group. Marks have too often restricted a whole roomful of learners to giving the same response. When the response must be the same, as two plus three equals five, mastery rather than a competitive mark is essential; when diverse responses are admissible, as in freehand drawing, concrete re-marks rather than abstract marks fit the situation. Concern for the growth of the individual supersedes the desire to locate him accurately on a scale. So much for

uniqueness and for the intelligent assumption of responsibility.

Democracy today has a social aspect as well as an individualistic side. Individual responsibility means responsibility *in* the social group. The child in the school group learns to work industriously and skillfully in the common cause. Individual uniqueness means different contributions fitting together to form a social product. Children in groups plan intelligently to do different things toward achieving the projected goal. The democratic, *co-operative* school is characterized by *free communication* and a liberal *sharing of ideas* among the pupils and between pupils and the teacher; the autocratic, competitive school prohibited even whispering between pupils, and pupils strove to keep their difficulties and mistakes hidden from the teacher. As the interests of pupils, teachers, and parents become more nearly *mutual* interests, an immense amount of nervous energy that has been wasted upon competitive marks may be turned into more wholesome, more educative channels. At the same time, each individual continues to be responsible for increasing his own ability to carry whatever part of the work his growing talents permit. The marking system used in a democratic school needs to be designed so that it strongly supports *individual workmanship for shared outcomes*. Likewise, in a democratic industrial society money must become a medium for increasing the quality of workmanship and at the same time for developing common interests and for promoting a widened sharing of the products by all the participating members. These fundamental problems of democracy in the school and in business life are evidently closely related.¹² The first step toward their solu-

tion consists in facing them as candidly as our knowledge of schools and communities permits. This frank consideration may well be reinforced by a willingness to delve more deeply into both aspects of the total situation.

Another step toward the solution of this conflict between workmanship and its rewards consists in using the school as an experimental laboratory. While democracy demands that questions shall be left open for free discussion, they need to be closed tentatively in actual experimentation. The continual experimentation which characterizes democracy suggests that society may so design its school programs as to discover how far the human race may safely venture beyond certain traditions that seem to retard social progress. For example, a new marking system may give evidence whether or not youngsters, at least, require competitive motivation. This novel venture in the school may throw light upon the economic problems of the community and suggest experimentation beyond the limits of the school. The proposal illustrates the newer type of relationship between the school and the society in which it serves. Instead of the school's being used for the autocratic handing down of traditions by the elders to the younger generation, it may become a place where youths meet adults for the purpose of solving their mutual problems through the methods of scientific, social experimentation. Such a school will be a growing point for democracy. Before the public school lies the possibility of becoming the chief safeguard of democracy against the danger of clinging too long to a wreck of old, outworn traditions, and also against those other dangers which accompany overconfident venturing into untried forms of social organization. Any school may exemplify democracy's shared search for social understanding by be-

coming in some degree a social laboratory for the analysis of confusions and for the reconciliation of conflicts. Adopting this experimental attitude toward the school and society, we turn, in Part II, to an organized discussion of psychology's conflicts, and later, in Part III, to a more definite social outlook.

Throughout the discussion we need to hold before us this tentative definition of the democracy we seek: *Democracy is a form of social organization that continually widens the area of common interests shared.* This is our educational and social creed. No other goal may supersede the continuous widening of common purposes among men; no thought or act is broadly intelligent unless, as Bode says, "it increases our capacity for sharing in common concerns and thus contributes to human freedom."¹³ The teacher who devotes his energies to promoting democracy must see clearly its meaning, so that he may design appropriate activities in which children and youths may experience the democratic way of life. He must be ready also to impart to youths an understanding of democracy suitable for their guidance in sharing at their own level of emotional and intellectual attainment. In the discussions that follow, the fuller meaning of the definition proposed will be examined to the end that teachers, parents, and pupils may find new ways of extending the area of their mutual interests.¹⁴

NOTES

1. Bode, Boyd H., "The Great American Dream," *American Philosophy Today and Tomorrow*, Horace M. Kallen and Sidney Hook, eds., New York, Lee Furman, 1935, p. 77. The American dream of equality of opportunity is traced through its frontier interpretations to the problems of democracy confronting the school today. To what extent do the various types of marking systems used

in schools support or retard the social reinterpretation of equality of opportunity?

2. Veblen, Thorstein, *The Instinct of Workmanship*, New York, Viking Press, 1914. Although current social psychology criticizes adversely the use of the term *instinct* in connection with cultural characteristics, such as "workmanship," the presentation of the conflict between the goal of pecuniary gain under machine industry and the maintenance of high-quality workmanship is suggestive. Does the evidence indicate that this conflict of interests has decreased or increased since the days before the World War, when Veblen presented his argument? See also Note 15 to Chapter I, p. 27.

3. Huberman, Leo, *Man's Worldly Goods*, New York, Harper and Brothers, 1936, Chap. XX. In this simply written but deeply rooted story of modern economics, the chapter mentioned will introduce the student to the diverse explanations offered for business crises and will deepen his feeling of the confusion in economic life. Further appreciation of the fundamental nature of the money-making conflict will come through readings cited by Huberman, especially: Mitchell, Wesley C., *Business Cycles* (New York, The National Bureau of Economic Research, Inc., 1927). For a most clear and concise statement of the issue, see: Mitchell, Wesley C., *The Backward Art of Spending Money* (New York, The McGraw-Hill Book Company, 1937), the essay entitled, "Making Goods and Making Money." If the businessmen who act as school board members and college trustees are so confused concerning economic processes, is it any wonder that confusion exists in the school over educational procedures? Can the aims and methods of public education be entirely different from the aims and methods followed by adults in their business affairs? In what degree should they differ?

4. Bear, Robert M., *The Social Functions of Education*, New York, The Macmillan Company, 1937, Chap. VII. This chapter on "The School in an Industrial Society" presents a brief analysis of the characteristics and problems of American economic life and shows how the public school may aid through attention to child welfare, vocational guidance, consumer education, and social integration.

5. Counts, George S., *The American Road to Culture*, New York, The John Day Company, 1930, pp. 71-76, 146-148. The sections cited deal briefly with the system of marks, the stimulation of the competitive impulses, and the measurement of school products. A study of the Table of Contents will suggest other sections that survey critically the controlling ideas underlying school marks.

6. Washburne, Carleton, *Adjusting the School to the Child*, Yonkers-on-Hudson, N. Y., World Book Company, 1932, Chap. I. The mastery technique as used in the Winnetka Plan of individual instruction is clearly described. For a critical examination of the mastery device in individual instruction, read: Thayer, V. T., *The Passing of the Recitation* (Boston, D. C. Heath and Company, 1928), Chap. XIV.

7. Russell, Charles, *Teaching for Tomorrow*, New York, Prentice-Hall, Inc., 1937, pp. 293-313. A vigorous presentation of difficulties met in rating pupils and a statement of new devices in use. The "M scale" described by Russell should not be confused with the suggestion in the present book of an "M mark." The Winnetka Plan of individual instruction and rating is also described (pp. 229-247).

8. *An Analysis of School Report Cards for the Elementary and the Secondary School Committees of the Council of School Superintendents of the State of New York*, Educational Research Division, The State Education Department, Albany, New York, 1935. This report has been followed by studies of the whole problem of reporting progress in the elementary grades, made under the leadership of Dr. J. Cayce Morrison, Assistant Commissioner for Elementary Education, The State Education Department, Albany, New York. See the report of a committee under chairmanship of Dr. J. C. Brown in *New York State Education*, December, 1935. In 1936 a questionnaire was sent to elementary-school principals and a report of the results published in mimeographed form under the chairmanship of Principal Arthur E. Layman, Menands, New York.

9. The extent of the conflict among schoolmen over the marking problem may be sensed by reading the titles of articles listed under "School Marks" in *The Education Index* of recent years. Three stimulating discussions originating in Massachusetts, Iowa, and Colorado suggest how widespread is the confusion: Rogers, Frederick Rand, "Education Versus the Marking System," *Education*, December, 1933, pp. 234-239; Wrinkle, William L., "School Marks—Why, What and How?" *Educational Administration and Supervision*, March, 1935, pp. 218-225; Hill, George E., "The Report Card in Present Practice," *Educational Method*, December, 1935, pp. 115-131. The last reference contains a selected bibliography of more than fifty articles. See also "Marks and Marking" in the Bibliography of Studies in Education, 1930-1, 1931-2, 1932-3, United States Office of Education, Library Division. For an excellent discussion

of new attitudes toward school marks by Walter J. Gifford, see: *Educational Psychology*, Charles E. Skinner, ed. (New York, Prentice-Hall, Inc., 1937), Chap. XIX, "Teacher Evaluation: Examinations, Grading, and Reporting."

10. Kallen, Horace M., *The Decline and Rise of the Consumer*, New York, D. Appleton-Century Company, 1936. A philosophy of consumer co-operation is offered as a substitute for the present producer conflict. Chapter XIII deals with the task of education in the co-operative movement.

11. Orata, Pedro T., "Measurement and Experimentation and Education for Independent Reconstruction," *Journal of Educational Research*, September, 1936, pp. 1-13. The author illustrates the fundamental conflict between the new educational ideal of independent reconstruction and the old methods of testing and marking, which are still used.

12. The similarity of school life to business life is not always recognized. In regard to the value of following one's own interest, contrasting conclusions have been drawn too often. A conservative father and businessman may criticize the ultra-progressive school for permitting each child to follow his own interest because this policy leads to anarchy rather than to social democracy. Yet, the same man may contend that every businessman should be allowed to follow his own interest because, he claims, this policy gives the fullest economic and spiritual life for all. Is the difference between the child and the adult sufficient to support this change of front? No, we all need the guidance of *each other* so that we may have mutual interests and achieve common purposes. The man who makes such divergent interpretations of self-interest is starting a disrupting conflict within his own life and perhaps in the life of his child.

13. From Bode, Boyd H., *Democracy as a Way of Life*. By permission of The Macmillan Company, Publishers. New York, 1937, p. 49.

14. Bogardus, E. L., "Ward's View of Social Telesis," *Readings in Educational Sociology*, E. George Payne, ed., New York, Prentice-Hall, Inc., 1936, Vol. I, pp. 331-334. This statement derived from the sociological approach suggests a further source of guidance to the serious student of social dynamics and societal progress. Ward's principles support the sharing of interests essential in a democratic society.

PART II

THROUGH CONFLICTS OF PSYCHOLOGY TO
HARMONY IN METHOD

CHAPTER IV

The Conflict Between Items and Units

Parents and teachers commonly assume that children are sent to the public school to collect certain items of well-established knowledge. Pupils are expected to acquire the correct spelling of words and to learn the fundamental combinations of addition and multiplication, the geographical location of cities, and the dated facts of history. Accordingly, the teacher feels pressed to drill each child in the accurate *mastery* of a thousand and one separate, specific, standardized responses, and then, as rapidly as possible, of a thousand more!¹ Yet when we stop to think of our own past or of the youngster's future, we realize that every individual feels a second need pressing upon him, namely, the need of *adjustiveness* in new situations.

Adjustiveness, as will appear more clearly in the illustrations, involves the inclination and ability of a person when he encounters changed conditions to reconstruct his own behavior, and his environment as well, in ways which promote his own development. The growing child continually meets new problems as he climbs out of his restrictive baby-pen for an exploration of the whole house, later as he trots into the street and neighboring yards or over the wide acres of the home farm, and eventually as he invades a much larger world which includes a school. Steadily he achieves

adjustive development—physically, intellectually, and socially—as he passes from infancy through middle childhood to adolescence. The maturing youth finds, however, as we have found before him, that his previous adjusting constitutes only a prelude to the adjustiveness demanded of a grownup in our times. The youth must be so educated that he can shift jobs in midstream without drowning, or perhaps digest a new interpretation of politics or morals, or participate in a new mode of economic organization. Inevitably the child grows into an adult who has two quite different needs: accurate mastery of a multitude of fixed, standardized items, and adjustiveness in the midst of novel situations. The contrast between these two needs and between the methods appropriate for meeting them constitutes a fundamental problem for both learners and teachers.

Although most teachers accept the double-barreled fact that life in a period characterized by both scientific exactness and social change demands item-mastery as well as adjustiveness, they seem to be divided over the problem of educative approach into two opposing groups. Some teachers prefer to start the children in projects, activities, or units, which involve new adjustments; while others believe that a child's education should begin with drill in the fundamental items of skill and knowledge. When we follow these proposals into actual school practice, we frequently find that the teacher ends by overemphasizing the aspect with which the schooling began.

The Item-Collecting School

At its worst, the doctrine that education should begin with the collecting of items has led fourth-grade teachers to accept as their function the storing of the pupils' minds with

items of knowledge for use in the fifth grade. Of course, the youngsters discover soon after entering the fifth grade that their new teacher is so busy helping them to gather items for the sixth grade as to leave no time for using the fourth-grade items in adjustive activities. This one-sided practice has been given pseudoscientific support by a psychology which places a collecting instinct at this age when youngsters exhibit a wide variety of interests *acquired* from their social environment outside the school. It is true that a fourth-grade boy is prone to collect a pocketful of such items as marbles, strings, fishhooks, and matches; but, after all, the boy shortly *uses* these things in some highly adjustive escapade. In sharp contrast, the multitude of items in teachers' textbooks and syllabi seem day after day to have crowded out the adjustive activities for which they presumably were collected. The item-gathering school has too often ended where it began—with a mere collection and no vital organization.

The extreme reaction against the emphasis on item-collecting proposes that the youngster's education begin by grasping a "whole unit of experience," or by undertaking a sizable "project," or by entering into a "purposeful activity" found in real life.² A fourth-grade teacher who accepts this point of view looks for any event in the youngster's ordinary experience as a convenient starting point. When on the playground a button is torn from a boy's coat, the teacher forthwith leads the class into a unit on button manufacture. Soon the teacher and the fourth-graders become engaged in a most interesting, diverting, and exciting sequence of activities as an event in the study of buttons leads to pearls and fisheries or to woolen clothing and sheep farming. There is danger that this scheme of school life may

turn out to be just a series of activities in which the relationships are merely superficial. Too often the group moves on to the next activity before the pupils master the detailed items and comprehend the relations within the unit. The unit-method may wander on, achieving neither an internal organization of each activity nor a larger, sequential organization of the series of class activities.

Logical Versus Psychological Organization

Beginning either with item-collecting or with a unit activity leads apparently, when not wisely safeguarded, to a common weakness—lack of organization. The item-gathering plan is usually based upon a teacher's or textbook writer's *logical* organization, but such an authoritative adult organization scarcely can be comprehended by the immature learner. The pupil is apt to think of his school tasks as a series of isolated items. On the other hand, the unit activity is credited with having a *psychological* organization which appeals to the young learner. If the organization of units remains upon this low, childish level, however, the pupil is not likely to achieve the scientifically organized understanding so needed by the maturing youth when he enters a complex, swiftly moving business world. Both groups of educators are too conservative. One group is afraid to venture outside the protective covers of authoritative textbooks and logical outlines. The other group is just as fearful of tackling any task which requires something more substantial than a childishly playful, psychological approach. Neither group has courage enough to explore the possibilities of an educative organization which will include both item-mastery and adjustiveness.

The Young Child's Organization of Motor Activity

Let us approach the problem of educative organization through a consideration of the method by which a young child organizes his activities before he attains school age and comes under teacher guidance. If we look at two phases representing different aspects of the preschool child's home experience, we may escape from school-produced misconceptions of the learning process. At one end of the scale are the physiological motor skills which lie close to the "natural" learnings of our biological cousins, the subhuman mammals. At the other end of this scale are the specifically human attainments of conversing and thinking, to which the use of man-made language symbols gives a contrasting "artificiality." The two extreme cases may define a long base line from which to start our plans of organized school education.

How does a baby learn to reach with his hand a particular spot or item? How is this accomplishment related to general, adjustive reaching? One experimenter has recorded the development of a four-months-old infant in grasping a rattle held six inches in front of his face and shaken occasionally.³ The progress of this grasping act is shown by the record to involve a reduction of useless movements throughout the whole body. For example, the kicks of the legs made during the grasping attempts gradually became less frequent. The average number of kicks per minute for the trials of the first, second, and third days was 50; for the fourth, fifth, and sixth days, the number was reduced to 20; while for the seventh, eighth, and ninth days, the average number of useless kicks made during a rattle-grasping act was only 5. The experimental record states: "The infant,

who at the beginning of the experiment was a squirming, wriggling, excited little animal when the rattle was presented, had in a week's practice learned to grasp the rattle promptly with a minimum of general bodily movement." The point is that the specific item of grasping ability was acquired through a general co-ordination of the whole sensorimotor system instead of involving merely the nerves and muscles of the arm. Apparently, the specific, accurate response of the physiological type is made possible only through a new organization of the whole body.

Furthermore, it is evident that the baby has learned something beyond this particular grasping accomplishment. He has become much more skillful also in grasping a rattle held a little to the right or to the left or a little farther from him. A development of *general* adjustive ability in reaching accompanies the learning of each specific motor item. It appears, then, that the growing child eliminates the teacher's problem of choosing between the "item" approach and the "unit" approach by acquiring through its developing organization the mastery of specific items and of general adjustiveness *at the same time*.

Note that the development of comprehensive motor skill depends upon two conditions. First, the body must be healthy, so that the nervous system can keep each part in touch with every other part and thus promote a generalized organization of the whole. The second essential is the presentation of opportunities for appropriate activities. In the early stage of development the appropriate activity may be very simple, such as the grasping of the rattle, and may seem like an isolated, single item which requires specific attention. As the child grows, however, his maximum development in motor co-ordination cannot come except through a

wide variety of exercise items. Also, the exercises themselves must become more complex, gradually grading away from the small item toward a relatively large unit, such as riding a tricycle, involving grasping, turning, pedaling, and balancing. For, even in the field of "natural" motor learnings, the dangers of item-gathering are not entirely avoided by the healthy co-ordination of the bodily organs. As examples, consider the retarding effects of the old calisthenic and penmanship item drills. Intelligent guidance into activities appropriate for each stage of development is essential to maximum growth in organization and, thereby, in both the mastery of numerous items and the development of broad adjustiveness.

Early Language Activity Becomes Organized

When we turn to the opposite extreme—the learning of words, which are more like artificial, man-made inventions than like natural motor acts—we encounter still greater dangers. If the teacher assigns the pronunciation and spelling of a single word, this activity is likely to remain an isolated item. There is no bodily system which insists upon automatically co-ordinating this word response with other responses in a unitary organization. It is quite possible for the teacher to restrict the child's schooling mainly to a series of fixed, isolated verbal items which promote no adjustiveness because they are not organized as a system. Again we gain some insight into the problem of organization and the relation of item-mastery to adjustiveness by considering the beginnings of language in the child's experience before he comes to school.

The amazing rapidity with which the young child picks up his native language with its varied forms and parts of

speech in the years preceding his fifth birthday offers a vivid demonstration in the integration of item-mastery and adjustiveness. We are not referring here to the first words of babies, occurring usually soon after the first birthday, for these are "trick" words, such as *mamma*, which are repeated by the infant through definite encouragement and training by the parent. These trick items, so specifically taught and slowly learned by repetition for *saying*, should not be confused with the rapid learning of words for *using* which begins some months later. According to an authority in the child study field, when the baby nears the age of 18 months, it is common for him to become suddenly within a few days an active seeker after new words.⁴ The feeling has vaguely dawned that words are useful keys to situations. The youngster is now picking up each word that he needs for definite use in adjustive fashion. From this time until his fifth birthday he adds about 50 words per month, giving him a vocabulary of over 2,000 words as a five-year-old.⁵ All these came without special drill or requested recitation. Thus, word-item mastery falls within and becomes a means of adjustive action.

If the child's word mastering consisted only of names of objects (nouns) and actions (verbs), it would be amazing enough. But consider further how he learns the structure of the sentence with its prepositions, pronouns, adjectives, and adverbs. Think how abstract are some of the verbal uses grasped. Listen to this three-year-old who follows his mother's complex statement with the question, "What do you *mean* by that?" How did the child make this step to the use of a word which generalizes the fact that sentences have "meaning," and which may sometime raise that fundamental problem of human culture, "What is the meaning

of meaning?"⁶ It is evident that verbal learning proceeds apace when it serves as a tool in vital activities. Accordingly, it is the duty of parents and teachers to provide the child, as in motor learning, with varied and increasingly complex activities in which a larger, more exact vocabulary and a more complex language organization will be needed for adequate adjustment. No doubt specific attention must be given to individual words, but these words need not be treated as isolated items, for they fit neatly and vitally into the child's living speech. As the child learns effectively outside the school, he does not place item-mastery first nor adjustment-demanding units first, but he brings the two into such intimate relation that the problem of time sequence disappears. The denial of a preliminary period for verbal item-mastery does not imply that item-mastery is unimportant. The right word is still necessary, but according to this view it is connected invariably with the right place. The item must never be isolated from the larger unit of organized action in which it finds its place and in which it has much meaning.

School Learning: Incidental or Intentional?

"Incidental learning" is the modern schoolman's term for such out-of-school attainments in motor control and language usage as we have described. That is, the motor skills acquired and the words grasped have come incidentally within the play life and home routine. The young child, at least, is not learning intentionally. The parents, however, more or less intentionally guide the child during his preschool years into a variety of motor and verbal activities which become increasingly complex. When the parents send the child to the kindergarten or first grade, they

expect the teacher to select with still more conscious, expert "intention" those activities appropriate for this five or six-year-old. The child of kindergarten or first-grade age still may participate energetically in the group activities of the school without the least "intention to learn." The youngster in the lower elementary school eventually discovers, however, the "intent" of the school as a place for learning and work rather than another place to play. This discovery often marks the beginning of a trying period for the child and his teacher. Can the teacher so guide the child that he will intentionally practice for the motor control needed in manuscript writing or intentionally study the language and thought of arithmetic? Will the pupil identify himself willingly with the intent of the school as found in its program of activities and studies? Or will he rebel, inwardly or openly, against the schedule of schoolwork? If a favorable answer can be given to these crucial questions, then the conditions found in "incidental learning," which promote the merging of item-mastery and adjustive action, may be continued as the child passes over gradually into "intentional learning." Otherwise, there is grave danger that the shift from the incidental to the intentional mode of learning may wreck the child's educative development by separating the teacher-selected items for mastery from the youngster's adjustive living.⁷

The extreme advocate of unit method and incidental learning looks with fear upon the shift to intentional learning and decides that the risk is too great. He feels that it is safer to retain the soft kindliness of the psychological approach through the learner's incidental interests. He insists upon direct participation in real-life activities, as contrasted with the study of subjects—mathematics, biology,

geography, economics, and music. He points to the effectiveness of "participation" education among primitive peoples like the American Indian tribes, where the boys learned to chip flint arrowheads and the girls learned to weave blankets by a long period of participation with their elders in these processes.

In order to evaluate these arguments, it is well to consider, first, that participation in the primitive tribe is already a step beyond incidental learning. The Indian lad took time intentionally for practice in chipping arrowheads, while his sister intentionally studied the designs and processes of blanket weaving. Adult social pressure and other environmental conditions no doubt directed the Indian child toward these useful skills much as our own children are directed toward writing and arithmetic. Second, we must remember that forces beyond our control will plunge the youngsters who are in our schools today into that stream of very complex activities called "modern civilization." We cannot in our generation return to a simple, primitive life. Our youths will need well-organized understandings of mathematics, biology, geography, economics, and music. The Indian lad need only learn to report whether the fish be "few" or "many." Compare these indefinite terms with our system of notation and its tens, thousands, millions—yes, billions—in which even the ordinary American citizen is concerned. The participation method might serve effectively for the learning of Indian fishing, but hardly for an adequate understanding of bacteriological infection. The Indian might learn his geography by tramping over a limited area, but the modern must know the whole world, little of which he will ever see. The student of education may go on to make further comparisons in the fields of

economics, music, and other subjects for study. It is evident that modern times require knowledge that is scientifically and logically organized. Such understandings can scarcely be attained without intentional learning.

Harmonizing Conflicting Aspects of Organization

This gradual growing-up from the incidental mode of child learning to the intentional method of the adult student apparently involves a shift from what has been called the "psychological approach" through interesting activities to the logical organization of natural science. The shift to scientific organization is necessary because only in a systematized science do facts become organized so that further study in a particular field is promoted. Scientific organization constitutes the necessary basis for the solution of complex new problems and the making of appropriate adjustments. The psychological appeal, however, need not be discarded, for the teacher may be able to lead the learner gradually into an understanding and appreciation of scientific, logical organization. A pupil may become really concerned about geography as geography or about biology as a separate science. So the student may continue the attitude of intense interest associated with the psychological approach as he enters into a logical and intentional learning activity. Thus, the tremendous amount of accurate item-mastery involved in thorough scientific study may be comprehended within a vital organization which will enrich life far beyond the possibilities of childish incidental interests.⁸

Beyond Separate Subjects to Adjustive Living

There remains the danger that a science, which may make a positive contribution to broadly adjustive living, will be

narrowed in the schools to a separate, fenced-in, subject-matter field. While it is often necessary to place a scientific-fact item in its particular science to give it more meaning, the restriction of the learner's interpretation to a single, subject-matter area may interfere seriously with the fullness of his educative experience. For example, when a nature student found grocer's string rather than horsehair in an oriole's nest near Boston in 1936, he properly referred this fact item to the science of ornithology. We must remember, however, that such a fact may have a still broader meaning. It may occupy a place upon the fence between two sciences, in this case ornithology and economic history. History may point to the importation of horses into New England during the seventeenth century and to their gradual disappearance in metropolitan areas owing to motorization in the twentieth century. The historian may also trace the increased use of store-bought groceries and the relative availability of horsehair and grocer's string for orioles. He may even predict the disappearance of grocer's string as the gummed-sticker strip takes its place. Then the ornithologist-historian may pursue the question of what fibers were used by orioles in the Boston vicinity before horsehair (and Boston) appeared, and what they will use when grocer's string (and perhaps Boston) have disappeared in the tide of economic change. In such a case the fence between subjects must be climbed or temporarily disregarded in order to get the fuller meaning of the fact. Likewise, the student of education finds that the understanding of a school situation often involves the consideration of widely differing fields, such as the present economic conditions, the potent biological factors, and the prevailing aesthetic values. In preparation for the teaching profession, the student usually

encounters a series of separate courses, but he and his instructors share responsibility for relating these different fields of study to each other. Life itself needs a logic that stretches above the logics of the separate sciences or subjects. Effective education encourages the relating of each item to the whole organization, although the placing of the item in a particular subject area may be an essential step in the process.⁹

It appears, then, that item-mastery goes forward most expeditiously in the midst of adjustive activities. The functions of the teacher are, first, to discover the present state of the learner's motor, intellectual, social, and aesthetic organizations; and second, to suggest new activities appropriate for the promotion of more complex organization in that individual. The latter function is supported by a rapidly changing society which offers a wide variety of new educative activities. From this standpoint, the faster the world moves, the greater the educative possibilities. This statement is true, however, only when the adjustments can be made adequately. There are conflicts, such as that between item-mastery and adjustiveness, which are interfering constantly with educative progress. It is the school's duty to remove these conflicts from the child's path so far as possible by a clarification of the relationships. The outcome desired is a broad and flexible organization, which promotes adjustive living and accurate learning in each new situation.

If we glance back now at the conflicts discussed earlier, it becomes evident that item-gathering easily lends itself to wage-scale marking on the basis of the proportion of assigned items that the pupil succeeds in collecting. Both item-mastery and wage-scale marking seem closer to a formal procedure than to the informal school. Taking the other

aspect of each pair, unit activities are pursued commonly by groups working informally, and the reports to parents consist of concrete statements concerning the particular contribution of each child and the degree of co-operation he has achieved. Yet, in spite of the trend away from formal procedures,¹⁰ wage-scale marks,¹¹ and isolated items, thoughtful teachers recognize in these conflicts persisting problems concerning the degree of formality, the kind of marks or reports, and the relation of items within organized thinking. The last problem persists largely because teachers and parents are confused concerning the formation of habits, which are regarded as isolated items of behavior.¹² Serious study of such problems shows that, while radical reconstruction is often necessary, absolute eradication or destruction is unwise. Constructive criticism is not an easy task, but it is the way toward educational progress and adjustive living.

Democracy in Activity Units

The danger of moving destructively in the heat of conflict from one extreme to the other appears as we consider the diverse interpretations of democracy that may arise. The shift of school procedure from the mastery of many, isolated items toward broad unit activities has been commended in certain quarters for being a movement toward democracy. The claim is made that under a system of item-mastery, the teacher is an autocrat who selects the tasks and drives his serf-like pupils before him. From this point of view, the unit method is considered democratic because it gives the learners freedom in choosing and in executing their own activities. There is grave danger, however, that a one-sided emphasis upon freedom for each individual from the standpoint of his uniqueness may result in a movement toward

anarchy rather than into social democracy. The school may become a chaos of random and antisocial activities unless the pupils learn to assume responsibility for the self-government and co-operative achievement that the present analysis of democracy implies.¹³ Anarchistic individualism is far removed from a democratic way of life in which the sharing of common interests is promoted. The adoption of a unit method procedure is not justifiable unless it results in developing the ability of pupils and teacher to work together constructively. Opportunities must be given for each member of the group to participate creatively in the planning of the unit. Effective work, which results in worthy products and clearer ideas to be shared by all the members, cannot be achieved without the accurate mastery of many factual items and the acquisition of necessary skills. Thus, an adequate view of the relations between responsibility and freedom in a democratic school will support an activity program which gives due regard to the item-mastery involved in well-selected units. Since each individual is given opportunity to participate creatively in planning and executing group activities, the youth's school experience actually prepares him for responsible citizenship in a democratic community. He learns to participate actively in the process of continually widening the area of his own purposes and, thereby, of the common purposes of the group members. As teachers and parents work together in developing a system of education in which individual freedom and social responsibility, psychological approach and logical organization, as well as incidental personal interests and intentional social aims, are appropriately adjusted according to the developing abilities of their children, these mature leaders may

come to see more clearly the methods and aims appropriate for adult democracy.

NOTES

1. See Note 6 to Chapter III, p. 75.
2. Kilpatrick, W. H., "The Project Method," *Teachers College Record*, September, 1918. Reprinted by Teachers College, Columbia University. This early statement interprets the project method as the use of the purposeful act in the educative process. For an illuminating application of this concept of project method, see: Collings, Ellsworth, *An Experiment with a Project Curriculum* (New York, The Macmillan Company, 1923). The experiment contrasted the results obtained by the project method in a typical rural school in Missouri with those obtained in two adjacent schools conducted in accordance with common practice. A comparison of Kilpatrick's formulation and Collings's experiment with the earlier emphasis upon the purposeful activity described in *The Dewey School* by Mahew and Edwards (see Note 1 to Chapter II) will help orient the student in the conflict between items and units. Acute observation of present practice in a modern elementary school will carry one's orientation forward. For an able analysis and critical appraisal of the various interpretations of project method, see: Thayer, *The Passing of the Recitation* (Boston, D. C. Heath and Company, 1928), Chaps. XVI and XVII.
3. Curti, Margaret Wooster, *Child Psychology*, New York, Longmans, Green and Company, 1930, pp. 168ff. For further study of the young child's organization of motor activity, see: Gesell, Arnold, and Thompson, Helen, *Infant Behavior, Its Genesis and Growth* (New York, The McGraw-Hill Book Company, 1934). Rattle behavior (pp. 106-119) is accurately described, as are numerous other motor activities, such as spoon behavior, sitting, stair-climbing, and paper and crayon behavior. For a brief analysis of grasping development in infancy, see: Jersild, Arthur T., *Child Psychology* (New York, Prentice-Hall, Inc., 1933), pp. 34-36.
4. Goodenough, Florence L., *Developmental Psychology*, New York, D. Appleton-Century Company, 1934, pp. 160 and 248ff. Compare the emphasis by Goodenough upon intelligent adjustiveness in language use with the inclination to reduce language to a

mere conditioning process by emphasizing the way in which language is learned through the practically simultaneous presentation of an object, a vocalization activity, and the appropriate sound or word. See, for example: Brooks, Fowler D., *Child Psychology* (Boston, Houghton Mifflin Company, 1937), pp. 173ff. The student needs to see clearly the distinction between the method of learning a word and the method of using it, so that he may grasp a relation between the two aspects rather than acquire another insidious conflict.

5. See Note 3 to Chapter I, p. 25.

6. See Note 10 to Chapter VIII, p. 185.

7. Bode, Boyd H., *Modern Educational Theories*, New York, The Macmillan Company, 1927, Chaps. III and VII. In Chapter III, "Logical and Psychological Organization of Subject Matter," Bode points out that after the teacher reaches the conclusion that both the psychological approach and the final logical organization are indispensable, a dilemma remains concerning the choice of subject matter and the general direction of education, whether toward scientific scholarship or toward vocational efficiency. The suggestion is made that guidance comes through an understanding of democratic responsibility for re-creation of the social environment and democratic respect for each individual. In Chapter VII, "The Project Method," Bode identifies the project method with instrumental or incidental learning. The danger of evading the problem of educational direction under the cover of purposeful activity and incidental method is emphasized. Both pupil and teacher need to see more clearly their intentional aims. For a brief criticism of two diverse attacks upon the traditionalist's preoccupation with subject matter, see: Bode, Boyd H., *Progressive Education at the Crossroads* (New York, Newson and Company, 1938), Chap. VI, "Teach the Child, Not the Subject."

8. Dewey, *Democracy and Education*, New York, The Macmillan Company, 1916, Chaps. XIV and XVII. In Chapter XIV, "The Nature of Subject Matter," Dewey shows how remote is the systematized subject matter of the adult from the experience of the child. Therefore, the young must begin with active occupations and proceed gradually to scientific insight concerning the materials and laws involved. The need for selecting activities in the light of their social value for democratic living is stressed. In Chapter XVII, "Science in the Course of Study," the psychological and the logical are brought into harmony through work in the laboratory, but the teacher is warned that laboratory instruction sometimes becomes a ritual that defeats the purpose of scientific study. When taught with

an understanding of the relations of the psychological and logical aspects, science may become the organ of general social progress. Also see Dewey's *Experience and Education*. In Chapter VII, "Progressive Organization of Subject-Matter" Dewey says (p. 105), "Nothing can be more absurd educationally than to make a plea for a variety of active occupations in the school while decrying the need for progressive organization of information and ideas." From Dewey, John, *Experience and Education*. By permission of The Macmillan Company, Publishers. New York, 1938.

9. Mitchell, Wesley C., "Research in the Social Sciences," *The Backward Art of Spending Money*, New York, The McGraw-Hill Book Company, 1937, pp. 78-81. The author recalls a deficiency exhibited by the social science work of the eighteen-nineties because of a lack of common understanding among the several university departments concerned with the study of mankind. Dewey and Veblen are given credit for bringing psychology, sociology, anthropology, economics, and political science into constructive co-operative action. Progress in social science occurs when the several fields of study attack a common problem.

10. See Chapter II.

11. See Chapter III.

12. See Chapter V.

13. See the section in Chapter III entitled, "The Meaning of Democracy—So Far," p. 70.

CHAPTER V

Confusion About Habit Formation

Modern educators sharply challenge the traditional emphasis upon habit formation. In many progressive elementary schools, child creativeness apparently has displaced habit training. In recent years psychologists have repudiated the old habit doctrine that repetition is the chief factor in the learning process. Furthermore, a new regard for the child's emotional life has made parents and teachers sensitive to dangers which arise from forcing the mastery of specific items of knowledge and skill to the level of immediate, perfect habitual response. Hence, many teachers now look with abhorrence upon habit formation as a process of deadening drill to which no growing child should be subjected. On the other hand, the child development leaders have stressed the importance of establishing routine health habits during infancy through a process of conditioning. By their side stand certain thoughtful people who insist upon the child's being drilled in good manners, for example, so that courtesy becomes a habit. Consequently, most teachers today employ a mixture of methods derived partly from vague fears of overemphasizing rigid habitual action and partly from sincere regard for those substantial habits which constitute constructive forces in the lives of children, youths, and

adults. The conflicting feelings of parents, teachers, and children concerning the place of habit formation in education lead to much confusion in public-school programs.

Although some educational psychologists propose as a relief the dropping of the vague term *habit* from their discussions, this course seems hardly feasible. A teacher can scarcely talk with parents about their child without the word *habit* forcing itself into the conversation. Perhaps they may be concerned lest Tommy or Sally pick up bad habits from other children. Or the parents may solicit the teacher's aid in establishing habits of neatness and orderliness, such as putting materials away and cleaning up after work or play activities. The teacher may bring into the conversation remarks about reading habits or health habits. Since we still use this common word *habit* continually, we need to define more clearly what we mean by it. Confusion often arises because the parent employs the term in one sense while the teacher uses it in another. The likelihood of diverse interpretations is increased by the fact that habit is not a carefully defined technical term, such as "neurone" or "perceptual reaction," for it comes out of the careless speech of the untrained man-in-the-street. Because it is so commonly used and misused, any attempt to reduce the confusion by clarifying the meaning of habit becomes important.

The wise parent and thoughtful teacher wish to develop in the youngster certain stable, persistent qualities of action and desirable modes of behavior, yet they earnestly desire also to preserve the joyful freedom of childhood and to develop the child's own individuality. The combining of these two conditions seems impossible to one who accepts the traditional view of habit formation with its emphasis

upon exact repetition. But the student of education, who courageously turns his back for the moment upon the common notions about habit to examine without prejudice a simple habitual skill, may discover persistent stability in happy combination with freely flexible action. Take, for example, the five- or six-year-old who is learning under guidance to tie his own shoestrings. The child must use the old habit formula of "try, try again" in acquiring the assured skill which he desires. These trials involve, however, variations which promote adjustive action. No one need fear, therefore, that the child's creativeness will be curbed. On the contrary, one outcome is a self-reliant attitude toward shoestring knots, and other knots as well, which frees him in some measure from his former dependence upon Mother or Teacher. Although some habits do restrict and degrade their victims, habitual action, when properly understood, is not in itself dangerous.

Are Habits Inflexible or Adjustive?

A teacher or parent might expect reasonably that psychologists would assist him toward an adequate understanding by giving accurate definitions and descriptions of habit. The reverse has too often been the case. The definitions still commonly follow the thought presented by William James when he refers to habit as "an automatic, ready-made response."¹ The ready-made response of James becomes, in later hands, "the relatively fixed way or combination of ways of reacting to situations."² Thus, the account given in an educational psychology text may deepen the conflict of ideas which the student has picked up in the home, the street, and the church, because the *definitions* overemphasize fixity while excluding all adjustibility. The confusion is still fur-

ther increased when the *descriptions* given by the psychologists set forth adjustive change.

Compare, for example, a definition with a description on adjacent pages of a widely used text. The definition runs, ". . . habits are, in general, *inflexible* and unprogressive. They cannot be readjusted because of their *fixity* . . ." ³ On the following page, the psychologist describes in detail the skillful use of hand tools as exemplifying habit. Note the range of adjustive change depicted in the habitual skill of the sawyer:

Let us consider certain habits with a view to discovering what analysis shows to be involved in the skillful use of a tool. Let us for this purpose think first of the way in which a skillful person uses a saw. When one drives the saw forward, it should engage the wood vigorously. When the saw is drawn back, it should pass lightly over the wood. The skillful sawyer makes his movements without stopping to analyze the experience; yet he is instantly *responsive* to the sensations which come from his saw. In such a phase of his movement as following a line or making a straight cut, the expert is *guided* by sensations in the palm of the hand. Let the saw swerve ever so little, and the skillful workman makes the necessary *turn* of his hand. He knows, further, how to *adjust* his stroke to different kinds of material; and he knows also that, when the board is very nearly divided, he must make a *skillful* stroke in completing the act.

In this description adjustability, rather than fixity, is outstanding. In the final clause, the word *skillful* is used to express that neat adjustment which is so characteristic of a well-formed habit. The value of the sawing habit seems to depend upon its responsiveness even to the slightest change in the conditions. When the student of education reaches the conclusion that habitual action is characterized by responsiveness, he may be in a quandary concerning the com-

monly accepted definitions of habit. Why does the psychologist partially conceal the conflict by putting the fixity characteristic into his general definition of habit, while he refers to the adjustability aspect only in the separate paragraphs devoted to the specific illustrations or descriptions of particular skills and habits? If adaptability is an essential feature of habits, why do definitions stress inflexibility?

The Adjustive Stability of Habits

One source of confusion is the fact that in habits some degree of stability always accompanies the adjustiveness. In all probability the expert sawyer of today will saw with a like skill tomorrow—and a year hence. There is substantial continuity evident in hand skills and in other kinds of habitual activity. Habits do persist! But this persistent similarity, which appears when today's behavior is compared with yesterday's, should not lead to the use of a defining term, such as *fixity*, that excludes from view the wide range of responsiveness to changed conditions shown by many a habit. A student is likely to be misled by a writer who defines habit formation as learning "to act, or to tend to act in the *same* way that one had done in the past."⁴ It is far wiser to remember, as James pointed out long ago, that no one ever performs an act exactly the same way twice.⁵ In the light of the changes constantly occurring in the learner and his environment, "fixed" and "inflexible" are misnomers for conditions of *continuity*, *persistence*, and *stability*, which involve adjustability as an essential characteristic. An adequate understanding of habit formation cannot be built upon definitions that are too restrictive. A definition of habit that will be useful to parents and teachers requires a wiser selection of adjectives.

At this point it may prove helpful to borrow the phrase which Lloyd Morgan has used in redefining *instinctive activity*—"persistency with varied effort."⁶ According to Morgan's interpretation, when we say that a pair of robins or a pair of orioles build a nest by instinct, we need not imply a fixed series of actions previously laid down in the neuromuscular organization of the birds. Instead, robins select certain materials from those available and use these materials more or less appropriately according to the shape of the particular tree crotch or eaves spout chosen. If the eaves spout slopes steeply, the robins may, after a few unsuccessful trials, use more mud in the base of the nest. Likewise, orioles adjust themselves to changing circumstances, using plant fibers, horsehair, or grocer's string, as the environment provides. So much for the varied effort.

On the side of persistency, note that robins persist in building one type of nest while orioles persist in building another type easily distinguished from a robin nest. The actual justification for the label *instinctive* is this similarity in the *result* attained by a particular species from generation to generation in spite of changes in the environment produced by industrialization or other forces. Although the nature student recognizes the general similarity, he finds that no two robin nests are exactly the same in construction. A pair of orioles will not employ exactly the same set of actions in building their second nest as in building their first one. Their persistence toward a typical result involves a variety of efforts *adjusted* to the particular conditions. Thus, Morgan's phrase suggests an intelligent resolution of the stability-adjustability conflict, which has so confused the discussions of both instinct and habit. This balanced view will protect the student against accepting the statement,

"Habits may become as fixed as instincts."⁷ Instead, he will conclude: "Habitual activities may involve at least as varied effort as do instinctive activities, for habits likewise persist, in spite of extensive alterations in conditions, toward similarity in the general result." As teachers and parents achieve a more adequate view of habit formation, they will discuss together more intelligently the training of children. At the same time, the methods which they co-operatively employ in developing habits in the children will be modified profoundly.

In illustrating this view of habit, Thayer has used baseball pitching. He says:⁸

The *sameness* of an act applies to the outer *result* rather than to the activities involved in producing the outcome. The ball pitcher who is "steady" is one who meets the ever-varying situations of the game in such a way that the same curves and speed are produced under differing circumstances.

The steady pitcher persists, in spite of differing conditions, toward results which appear to the catcher as the same old curves. Actually, these curves involve in their production a variety of rapidly changing readjustments of emotional impulses and sense perceptions that never before have been experienced. When steadiness, stability, and persistence are understood in this way, these words carry the valid side of what psychologists may have meant when they used such words as *automatic*, *sameness*, and *fixity* in defining habit. But the student of education will find it safer to apply Morgan's phrase—"persistency with varied effort"—to habitual action, for this permits him to retain the sound idea of stability without being bound to the notion that responses can be ready-made and inflexible. Parents and teachers will

adopt a different attitude and procedure in promoting habit formation as they come to see clearly youth's need of adjustability in staying steady—whether in games, manners, or morals.

A further source of confused argument over the practical methods of habit formation lies in the common use of the one term to cover the extremely wide range from narrow habits, which are relatively inflexible, to broad adjustive ones. As examples, at one end of the scale take teaching children a spelling word, such as *s-e-p-a-r-a-t-e*, in just one fixed way, or teaching adults the gear-shifting routine in automobile driving so that the habit seems automatic. At the other end of the scale we may cite such habits as courtesy on the highway, the wise budgeting of time, and critical thinking on political questions. Between the two extremes may be placed examples like adjustive hand skills and the techniques of long division. If the psychologist in writing about habit bases his thought upon spelling lessons while his reader has in mind adjustive skills like sawing or comprehensive attitudes like courtesy, it is no wonder that misunderstanding and confusion follow. The justification for this inclusive application of the term *habit* to activities that differ so widely is based upon the stability common to all of them. Teachers, as well as psychologists, may take warning to safeguard their statements in view of the great variety of activities included under the single label *habit*. The diversity suggests that no single formula for habit formation can be applied to all these different learning tasks.

Old and New Physiological Theories of Repetition

The misunderstanding of habit has been deepened by the oversimplified explanation offered for the physiological

processes involved. The establishment of a particular neural pathway for each item learned and each habit formed has been emphasized in many educational psychologies. According to this hypothesis, the appropriate series of nerve cells in the brain cortex become bound together through the reduction of resistance at each synapse, or gap between the cells. This reduction of resistance is supposed to result from the *repeated* passing of the neural impulse through the series at each repetition of the act. Apparently, many *exact* repetitions are required to learn a particular item or to establish a certain habit. Although psychologists usually call the student's attention to the multitude of neural and muscular structures involved in any habit, the simplicity of the neural-pathway theory and its accord with common notions concerning the need of much repetition are likely to restrict the student's appreciation of the variations and complexities which are involved in habit formation. Students who want to escape from the neural-pathway fallacy may need to follow Lashley through his extensive experimental search for the location of particular neural pathways in the brain cortex from which he concludes:⁹

The learning process and the retention of habits are not dependent upon any finely localized structural changes within the cerebral cortex. The results are incompatible with theories of learning by changes in synaptic structure, or with any theories which assume that particular neural integrations are dependent upon definite paths specialized for them. Integration cannot be expressed in terms of connections between specific neurones.

A further aid in escaping from a too simple devotion to exact repetition may be found in Dunlap's criticism of the "brain-path" theory. He makes the paradoxical statement that in attaining a skill, such as dart-throwing, one learns to

hit the target by *missing* it.¹⁰ Until the student's view includes adequate emphasis upon the continued modification involved in the formation of most habits and the contributions made to a single habit by all parts of the body, he is scarcely equipped to deal wisely with the complexities of a child's development.

Scientific Study Leads to Many Causal Factors

When the conclusion that adjustiveness is an essential characteristic of many important habits is reached, the question arises: What causes or conditions do lead to the high degree of similarity often observed in the result? If our habits are constantly readjusting themselves, why does enough continuity occur to justify the use of this name? Why do flexible habits persist at all? What is the source of the stability found over the entire scale from narrow factual items through adjustive skills to broad attitudes?

In attempting to answer these questions, the student must be on his guard against any explanation which limits the number of causes or conditions included. The explanations offered for the continuity observed in habitual action too often identify the habit with the body of the person who "has" it. The positive support which is given by the environment is then neglected. This fallacy of seeking for the *one* cause of any condition is an ever-present danger in complex fields such as natural science, economics, politics, and education. A crucial case in the field of education is the concentration of attention upon the "brain-path" theory as *the* explanation of habit, to which reference has been made. Such an interpretation reminds the writer of an explanation once given him in the elementary school that the tides were caused by the moon. When one finds, for instance, that at

the Atlantic end of the Panama Canal there is only one high tide a day, while at the Pacific end of the Panama Canal there are two high tides daily, he begins to suspect either that the moon has peculiar powers or that there are other factors to be taken into account. And when the geography student learns, further, that the Pacific tides are frequently more than 15 times as high as the Atlantic tides, at these two points little more than 30 miles apart, he may come to the conclusion that a number of causes must be investigated before the flow of the tides can be explained adequately. In like manner, the psychology student who observes habits carefully will give up the notion that they belong exclusively to an individual, or that they are established within a limited area of the nervous system. The persistence toward similarity in outcome, which noncritical common speech has labeled "habitual," cannot be explained scientifically without bringing to light a wide variety of contributing factors.

The Handwriting Habit and the Whole Body

For example, let us consider a habit which is well formed and persistent in most of us—handwriting. Certainly an important factor which contributes to the continuance of the skill is the more or less flexible pattern of activity that has taken form during previous writing. Without doubt this organization of activity has involved modification of the neural and muscular conditions in the hand, arm, and brain. But it is also highly probable that activities which contribute to, or rather, are involved in the writing habit are continually occurring throughout the body as this habit is being "used." One condition, aiding in the maintenance of similarity, is that the writer keeps his eyes on the *result*. The ears also help in the detection of undesirable variations, such

as a scratching pen. Nor will the behaviorists allow us to omit certain changes in visceral conditions which enter into that complexity of feeling and action called a "habit." So it is generally agreed (though by no means adequately emphasized in many psychologies) that the formation and stability of a single habit depend upon the *whole* body of the man. Illness or old age, by altering the general health, often brings also a shaky hand. Even this view does not carry the history of a habit outside of that we call the individual. The habit may still be regarded as merely *in him*. On this narrow basis the student is likely to assume that the writing habit becomes fixed in the school pupil after a few years of practice. But an adequate understanding requires that the external or environmental factors be considered along with the widespread "internal" reorganization which occurs.

The Physical Environment and Handwriting

The intimate relation of habitual action to environmental conditions scarcely can be appreciated except through noting the changes in action which accompany changes in these factors. The quality of handwriting depends, in part, upon certain equipment, such as well-made desks. If on leaving the school the pupil takes a job where his writing is done on a pad held in the hand, numerous changes occur in his writing habit. It will not persist in quite the same form. Likewise, if a very rapid rate of writing is required, the handwriting may be ruined. When two such factors as speed and equipment are considerably altered, the change in the handwriting may be quite as notable as its stability. The "natural" persistence appears to be greatly weakened by the lack of environmental support. But the reader may object

to this interpretation on the ground that abnormal conditions have been introduced. He may assert: "Under *normal* conditions the handwriting habit does persist." In this statement, however, he practically acknowledges that the external conditions are extremely important factors in determining the degree of similarity which will appear in the results. Indeed, if one declares that he accepts "normal conditions" as the indispensable accompaniment of an enduring habit, is not this statement very much like saying that an organism acts in a similar way when confronted by similar conditions? If habit involves nothing more than the adjustment of an organism's activity in accordance with its environmental situation, it is time, certainly, to abandon the term as a meaningless one. If stability in results is to be linked invariably with stability in the environment—with normal conditions—the sooner the term is cast aside the better, for it is more appropriate to apply the name *adjustment* than the name *habit* to an action which fits so neatly into the situation.

How Does Aim or Ideal Function in Habit?

In opposition to an interpretation of stability which gives so much credit to similarities in the environment, it may be maintained that the unique characteristic of a habit is the persistence of certain essential features of the activity in spite of changes in some "external" conditions. The handwriting may still be legible, even when comparatively defective equipment is used at the intense speed demanded by business service. Apparently the particular factor which dominates the situation is the *idea* of a certain result to be maintained, namely, legibility. The habit's stability depends in a fundamental way upon the aim or *ideal* of the

writer toward legibility. Applying this widely, habitual action does not imply the mere *repetition* of activity by neurones and muscles which are "ready" to act because they have been "exercised frequently." Instead, habit involves a more or less continuous reorganization of action throughout the entire nervous system and the whole body for the *purpose* of maintaining a *result* which is foreseen and desired.

As Dewey says:¹¹

Repetition is in no sense the essence of habit. Tendency to repeat acts is an incident of many habits but not of all. . . . The essence of habit is an acquired predisposition to *ways* or modes of response, not to particular acts except as, under special conditions, these express a way of behaving. Habit means special sensitiveness or accessibility to certain classes of stimuli, standing predilections and aversions, rather than bare recurrence of specific acts.

The stability of an effective, flexible habit centers in the standing predilection, aim, purpose, or ideal, which the person holds. The results are continually checked against the ideal. With his ideal as a guide, the individual continues to use his environmental equipment and "himself" to produce a similar outcome from time to time in spite of many alterations in conditions. Since the stability of such habits lies in the similarity of results rather than in the duplication of actions, and since results must be foreseen in order that they may be attained, it appears that aim, purpose, or ideal constitutes the key to these habitual actions.

Ideals or aims, however, are exposed to the possibilities of modification quite as are other contributing factors. For example, many pupils let their writing and their grammar "slide" when they escape from the pressure of the elementary-school teacher. Other students continue to improve

their "hand" and their command of English because they appreciate the social and professional benefits therein. These habits grow stronger in the sense that they become more effective as they approach the ideal. But if an ideal is subject to change, for the better or the worse, or if it might be abandoned altogether, the assumed stability of flexible habits seems to rest upon an insecure foundation. Does this mean that a habit which is dominated by an ideal may be as unstable as a whim?

While it is true that ideals do change, and in extreme cases overnight, it is quite clear that the ideals or aims which guide our habits in producing stable outcomes rest upon broad and deep foundations. Having made ideal the keynote of habit, we must not take the ideal as a narrowly limited cause. Instead, we must go back over the ground and at least suggest the multitude of factors which enter into making the ideal itself live on. In the first place the social environment plays a large part in determining one's ideals or purposes. And the social situation is extremely stable in many of its aspects. To return to our illustration, the social demand for writing ability is persistent. Consequently, within a civilized community one finds not only many reasons for writing, but equipment also is accessible readily. The living physical body contributes energy which must overflow in action. And this action flows, as far as may be, in accordance with the patterns which have been found appropriate in previous situations. This patterning does not mean mere similarity in physical movement. The pattern is a choice of experience, for a person is apt to "see" or "take" his social environment as he has done in the past, often neglecting changes which others observe. Hence, although our habitual actions involve guidance by aims or

ideals, these ideals are maintained and modified by a complex situation which is the outcome of struggle by a dynamically organized life to maintain itself and to grow within a more or less uncertain and changing environment.¹²

The New View of Habit Modifies the Teacher's Task

An explanation of any habit must present an inclusive view of the organization of the individual's whole body, of the limitations, support, and direction offered by the physical environment, and of the way in which the social situation affects the ideal aspect. In the formation and maintenance of a habit, these three distinguishable aspects act together in such an intimate way that it is misleading to separate them, except as a device for noting the variety of changes involved. The definition of habit must take account, therefore, of the changing individual and also of those changes in the surroundings which concern him. If, in the midst of all this change, some degree of stability can be discerned, it will be seen as *stability in the situation*. "The situation" includes, of course, the individual and his environment, physical and social, as aspects which are inseparable in the explanation of action. The habit is not just *in him*. If a habit is produced in a social environment, it will also be maintained in a social environment. A habit does not maintain itself.

If a habit seems persistent, then the student of educational psychology has the problem of measuring the degree of similarity in the physical equipment employed, in the social influences which bear upon the habit, and in the organization of the whole body, as well as determining the permanence of the muscular and neural organization immediately concerned. From the standpoint of the teacher, habit formation involves, therefore, an attempt to control many of these

factors so that they may continuously work together in the maintenance of a desirable degree of stability. Forming a habit involves something more than so much practice, with the momentary attainment of a minimum achievement score. And this something more can scarcely be described as "overlearning"—a mere extension of repetition.¹³ The educator's duty reaches beyond requiring practice to the creation of ideals and, perhaps, even to the modification of the social environment so that desirable habits may have some chance beyond the confines of the school.

Constructive Habit: a Stabilizing Factor for Democracy

In the school a teacher who has escaped from the old notions of habits as fixed simply by repetition will have a new concern for the constructive habits the youngsters are forming. The fear either of overemphasizing or of neglecting habit formation will disappear as the teacher's attention is turned to designing activity programs and selecting units for study that promote the varied action and the broad ideals essential in stable habits. Instead of a confused jumping between dictatorial drills and activity periods of excessive, anarchistic freedom, the teacher and the pupils will work co-operatively at appropriate tasks. The conflict between item-mastery and unit activities will be reduced by an appreciation of the relations between narrow habits and broad adjustive habits. The pupils will be relieved of undue fear of making errors and take more responsibility for discovering and correcting their own errors. Consequently, they will come to feel in the learning situations certain needs for accuracy, neatness, and courtesy. Gradually these needs will be transformed into relatively stable ideals. Thus, a more

liberal type of habit formation may foster democratic rather than autocratic relations in the school.

Even outside the school, we notice a movement away from the older prohibitions and rigid rules established under the influence of the ancient view of habit. For example, street signs of today warn the motorists to "drive carefully" or to "protect our children," instead of threatening arrest for "driving over 15 miles per hour." There is a growing recognition that effective habits may involve liberal adjustments guided by ideals based upon a wise consideration of personal and community interests.

In fact, the view of habit formation presented here implies that society is democratically organized to promote intelligent adjustment by all citizens. The older interpretation, with its emphasis upon fixity and inflexibility, seems more closely in accord with an autocratic or dictatorial regime. Fixed habits correspond to fixed rules issued by a dominating authority. Under such a system the older generation sets up definite forms of conduct for youth. The underlying assumption is that change does not and should not occur. This assumption applies appropriately to certain school activities only. That five plus seven equals twelve is for practical purposes an unchanging fact. The spelling of a word may remain fixed for a lifetime or for centuries. Fundamental moral attitudes, such as honesty, may prove acceptable through long periods of time, although requiring reinterpretation under new conditions. Social manners, on the other hand, change like fashions. The point is that in a democracy, each generation and each group claims the right to participate experimentally in determining its own standards of action. In this process the

group shares in the tradition, although it may decide on modification. Whether it retains the old idea or constructs a new one is immaterial so long as the group constitutes its own authority. Note that the democratic process permits adjustment as conditions change. This adjustability gives a democracy stability in the same way that adjustiveness in a skill promotes its stability. To secure progress, an autocracy or a dictatorship must be overthrown by revolution, just as a fixed, inflexible habit must be "broken." In a democratic group, as in an adjustive skill, progress involving a multitude of changes may occur without destroying stability. The democratic group preserves the stability of its ideals and the moral character of its members.¹⁴ Democracy, like the new psychology of habit, stands on its own merits as a working process. The new interpretation of habit formation will promote an intelligent adjustiveness in the social group through the development of common, conscious purposes among its members. The key to stability for the social group—be it a small rural community, a city, a nation, or a world-wide economic organization—is the *continual widening* of shared interests in accord with the democratic creed, just as adjustiveness is the key to stability for many a habit.

NOTES

1. James, William, *Talks to Teachers*, New York, Henry Holt and Company, 1899, p. 64. In this practical talk about "The Laws of Habit," James made the forward step of emphasizing the positive acquisition of desirable habits rather than the negative elimination so stressed in his day. The discussion neglects, however, the adjustiveness of human behavior clearly described elsewhere in James's writings.

2. Benson, Lough, Skinner, and West, *Psychology for Teachers*, rev. ed., Boston, Ginn and Company, 1933, p. 141. The direction of the trend in the discussion of habit may be seen by comparing the

statements in the text quoted with those in the 1926 edition of the same book (p. 65). In the earlier edition, "relatively" and "combination of ways" do not appear. Such comparisons of earlier and later editions of educational psychologies often reveal curious combinations of retardation and advance as the authors struggle to meet the new facts discovered by scientists without completely abandoning their earlier views.

3. Judd, Charles H., *Psychology of Secondary Education*, Boston, Ginn and Company, 1927, p. 301. (In this quotation and the following one from the same book, the italics are not found in the original text.) A reading of Chapter XIV, "The Psychology of the Practical Arts," from which the quotations are taken, will show more adequately where the author stands in respect to the conflicting views of habit formation.

4. Benson, Lough, Skinner, and West, *op. cit.*, p. 141. (Italics not in the original.) The student should be on his guard whenever the word *tend* or *tendency* is used in a psychology text. These words may well be taken as warning signals that the complexity of conditions actually results in action of a *different* sort from the one toward which the tendency is said to be directed.

5. James, William, *Psychology, Briefer Course*, New York, Henry Holt and Company, 1892, p. 154. The section entitled "Consciousness is in constant change" may be compared with James's preceding chapter on "Habit" to consider the degree of validity in the distinction made between the characteristics of *ideas* and those of *habits*.

6. Ogden, R. M., and Freeman, F. S., *Psychology and Education*, New York, Harcourt, Brace and Company, 1932, p. 16. The section entitled "The Nature of Instinctive Behavior," from which the reference to Lloyd Morgan is taken, when supplemented by the following section on "The Nature of Reflexive Behavior" suggests a very wide range of behavior from the general and complex to the special and stereotyped. Such a wide range also is covered by the term *habit*, to the confusion of parents and teachers.

7. Benson, Lough, Skinner, and West, *op. cit.*, p. 142. The view an educator takes of habit is intimately related in most cases to the view he has of heredity. As his views of heredity change, so do his views of habit. A comparison with the earlier edition shows this striking difference in the sentence immediately preceding the quotation. The 1926 text reads (p. 66): "The human being begins life with a large stock of reflex arcs which can be formed into habits,"

while the 1933 edition states: "The human being begins life with many reflexes, some of which may be reorganized into habit-patterns." A comparison of the statements on heredity and on habit in any education textbook, or in different editions, is apt to be suggestive. For a discussion of the underlying confusion about heredity, see Chapter VII of the present book.

8. Thayer, V. T., *The Passing of the Recitation*, Boston, D. C. Heath and Company, 1928, p. 105. The quotation appears in Chapter VIII, "Learning as an Active Process: A Reinterpretation," which, with the two preceding chapters, constitutes a constructive criticism of the writings of E. L. Thorndike concerning habit and heredity. For Thorndike's statements, see his *Educational Psychology, Briefer Course* (New York, Teachers College, Columbia University, 1914), especially Chaps. I and XI.

9. Lashley, K. S., *Brain Mechanisms and Intelligence*, Chicago, The University of Chicago Press, 1929, p. 178. The student may approach this technical study by reading the Foreword, Preface, Chapter I, "Theories and Problems," and the Summary at the close. Notice especially that Lashley began his study with a bias in favor of tracing conditional-reflex arcs (neural pathways) through the brain cortex, but the experimental findings never fitted into such a scheme (p. 14). For a criticism of Lashley's conclusions, see: Woodworth, Robert S., *Psychology*, rev. ed. (New York, Henry Holt and Company, 1934), pp. 196ff.

10. Dunlap, Knight, *Habits, Their Making and Unmaking*, New York, Liveright Publishing Corporation, 1932, Chap. IV. This chapter, on "Physiological Theories of Learning," criticizes oversimple theories of brain action for misleading parents and teachers. Chapter X, "The Breaking of Specific Bad Habits," shows how repetition or practice of the bad habit may be used under certain conditions arranged by the trained psychologist as a means of breaking the habit. Thus, Dunlap turns the older notions about the effects of repetition inside out.

11. Dewey, John, *Human Nature and Conduct*, New York, Henry Holt and Company, 1922, p. 42. Part I, entitled, "The Place of Habit in Conduct," opens with statements to the effect that habits require the co-operation of both organism and environment, especially the social environment. The view of habit is enlarged beyond the narrow physiological interpretation, which attributes habits merely to the person who acts. According to Dewey, "human nature" modifies itself from generation to generation through the

reconstruction of social institutions so that a more congenial medium is provided for habitual and intelligent action. Dewey in this book balances in discussion the influence of original and native human nature and the influence of the social environment. (A low-priced edition of *Human Nature and Conduct* is published in the Modern Library series by Random House.) In *Democracy and Education* (pp. 54-59) Dewey points out the vast difference between routine habits and active habits. He calls for "an environment which secures the full use of intelligence in forming habits."

12. Chapter IX clarifies further the relations between habits and ideals through a discussion of the functioning of intelligence in habit formation.

13. Trow, William C., *Educational Psychology*, Boston, Houghton Mifflin Company, 1931, pp. 254-256. The early experiments of Ebbinghaus on the overlearning of nonsense syllables are set forth briefly. The student must judge how applicable is any inference drawn from experimentation with nonsense materials concerning the importance of repetition when that inference is to be applied to the meaningful or sensible materials used in schools. Trow suggests properly that the kind of material learned and the motivation of the learner are important factors in the process.

14. The conflict of the old and new psychologies of habit formation in the character-personality education field is discussed in Chapter VI.

CHAPTER VI

Methods of Personality-Character Education

The deep concern of parents and teachers about personality and character education may be traced to two major causes. First, whenever the public critically surveys its schools, attention is called to the fundamental importance of character and personality in comparison with informational knowledge and elementary skills. The failures of youth and adulthood are blamed upon defects of personality rather than upon ignorance of facts. Maladjustments, misbehavior, and criminal action are referred commonly to weak and warped character rather than to lack of skill in the three *R*'s. The second reason for concern arises from the great difficulty encountered by those who attempt to "teach" personality or to "learn" character. These old pedagogical terms—*learn* and *teach*—fit neatly with bookish schooling, but seem quite inappropriate when applied to character and personality. Fortunately, both these causes of concern rest upon a sustaining confidence that it is possible, in spite of the alleged hereditary limitations of human beings, to modify profoundly the deeply controlling attitudes of every individual, especially during childhood and youth. By setting aside for the time being the controversy regarding the relative effect of heredity and environment, we may state the problem as that of discovering new methods of

learning and teaching which will actually promote character building and personality development.¹ What techniques will produce the fundamental characteristics that are essential for substantial membership in a democratic society?

Character education in the public schools is regarded by many persons as a modern movement—a recent shift away from a narrowly informational and intellectual training to an emphasis upon the more fundamental social needs and characteristics of children and youths. A deeper knowledge of the evolution of the school, however, leads to the conclusion that the main difference lies in the adoption of *new methods* for achieving the *old aim* of character building. In early American schools, the method employed was a *negative* type of training designed to prevent sinful misbehavior. The child, and adult as well, were given commandments *not* to lie or steal, and in school not to whisper or copy from one's classmate. These drastic rules were reinforced by severe punishments. Such dictatorial and conditioning devices for preventing misbehavior have been replaced in considerable measure by the introduction of *positive* methods of encouraging desired behavior. The children have been admonished to be truthful and honest, and to work independently. Furthermore, they have been rewarded at times for their "goodness" with stars and prizes. This step from the negative to the positive emphasis has been a long psychological stride forward, although the dictatorial designation of "right" actions by the teacher and the conditioning technique of attaching artificial pleasures have still held the methods down to a relatively low level.

The change from negative to positive admonitions has opened the way, nevertheless, for advance toward a higher level where a more active participation by the learner is

encouraged. Teachers and parents have slowly discovered that the child remains too passive for adequate character building as long as he merely receives admonitions from his elders, even when the bare rules of conduct have been dressed up in moral stories. Words and ideas, when not supported by the vigor of action, have failed to produce fundamental change in the youngster. Hence, the further step of building character through activities—through actual social-behavior experiences—has been widely accepted as a more effectual method in the personality-character areas, following a similar movement in other fields of education. Today the active-learner psychology so thoroughly pervades educational thought that it is unnecessary to defend or elaborate it here. We can assume, then, that all teachers, parents, and mature students agree that a program involving *social-behavior experiences* is essential for personality and character development at all ages beyond infancy.

Two Problems: Choice of and Entrance into Activities

Accepting-as fundamental the active social participation of the learner, the problem of method in personality-character education may be restated in its two phases: first, that of choosing the appropriate activities for each differing individual, and second, that of getting each learner to enter into his activities with the whole-souled vigor requisite for substantial change in behavior. The second phase is every bit as important as the first, for personality and character changes occur only when the individual actually grasps new social interests.

The reader will notice that in this discussion the terms *personality* and *character* are being linked together and freely interchanged as though they were equivalent in mean-

ing. Although some writers have made nice distinctions between the two terms, in common usage the choice of term depends often upon the attitude of the speaker toward the person who is being developed. A teacher, for example, usually speaks of a fundamental change produced in his pupils as an outcome in "character building." When the same teacher mentions a similar improvement which he has achieved in himself, he calls it "the development of my personality." Is the inference valid that teachers consider their own characters to be fully and perfectly built, needing only superficial additions in personality, such as poise, refinement, and sociability? Or do teachers mean that school youngsters scarcely can be expected to attain anything beyond the foundation virtues of industry, honesty, and loyalty? Although the different slants given to the two terms might lead to proposing a different method for character building than for personality development, in school practice the similarity outweighs the diversity. In both cases we are concerned with establishing numerous, broad, far-reaching traits or characteristics. From a psychological standpoint it may be maintained, therefore, that the problem of method in changing the fundamental traits of a public-school youngster is not essentially different from that of developing desirable characteristics in his prospective teachers while they are attending a teacher-training institution. Later we may discover some principle to guide the modification of method as we move from lower to higher levels of maturity. Adopting an inclusive approach, we seek to discover certain essentials of method that will promote a happy combination of the two phases of character-personality development—the wise *choice* of an activity and the individual's whole-souled *entrance* into that activity.

The Direct Method and the Teacher's Personality

Keeping this two-sided problem before us, let us examine certain proposals that have been made for the development of personality in student-teachers, returning later to test any principles discovered by applying them to the difficulties of character building among elementary and secondary-school pupils. The development of a superior personality has been brought forward recently as a special objective in the training of the public-school teacher. Teacher-training institutions have discovered, apparently, that the majority of failures among their beginning teachers are clearly traceable to personality defects. Many a young teacher who has successfully passed the courses required for graduation is labeled a failure by those who judge his teaching because he lacks forcefulness, sociability, a businesslike manner, or some other essential trait. Consequently, most teacher-training institutions are making special efforts to eliminate personality defects in their students, after having excluded many applicants because of more serious personality deficiencies. The methods used, while all are based upon the principle of genuine student activity, differ in that some consist in a direct attack upon particular defects one at a time while others use an indirect approach through comprehensive experiences. We offer for critical consideration a typical example, which may expose dangers inherent in the direct method.

In a certain institution the faculty begins by securing a list of essential traits through an analysis of the activities of successful public-school teachers.² Plans are laid to insure the development of these desirable traits in every student-teacher. The students come to realize, through readings and discussions early in the training course, the importance of

certain personality traits for success in teaching. A hearty and unanimous "Yes" is voiced in answer to the question: "Would the benefits that would come from a superior personality repay a student expecting to teach for the effort necessary to obtain it?" While the student is still filled with enthusiasm for expanding his personality, an individual analysis exposes his own weaknesses to him. The faculty committee promptly provides a list of activities designed to develop each defective trait. Thus, throughout the rest of his training course, the student devotes a designated portion of his time and attention to making definite changes in his personality.

Directness is the outstanding feature of this method. Each student aims consciously and directly to attain a superior personality. Furthermore, each trait becomes the object of a specific, direct attack. If a student is short in friendliness, or if he lacks ambition or cheerfulness, the plan has certain practical exercises for each characteristic. This directness stands in striking contrast to the more or less vague benefits often claimed for "the atmosphere of our college." Whether such directness is worthy of commendation or the reverse, it is the dominating feature in many a program for personality development and character building in public schools as well as in higher institutions.

The directness in the case under consideration is accentuated in two ways. First, the institution apparently plans to build up each trait as a separate unit. The student's faculty advisors lay out for him a list of traits to be worked upon "arranged *in the order* in which they are to be developed," together with a list of readings for each trait. One student's list may be headed by initiative, followed by friendliness and then sportsmanship. Another student may be asked to

work first on refinement, next on courtesy, and finally on neatness. Thus, the student enters upon his program with the idea of enhancing his personality by developing or correcting, *one at a time*, a few specific and separate traits.

Second, the whole program centers directly upon the student's personal success in the teaching profession, if one may judge from the introductory problems presented to the student:

1. In what degree does the success and failure of a teacher actually depend upon his personality?
2. How important a part does personality play in determining the success or failure in other occupations than teaching?

With this brief description of a typical program of the direct sort before us, let us face certain dangers and difficulties that are likely to arise. What results in student attitudes and conduct will follow from centering directly upon professional success, and from relying upon the simple and direct method of developing one trait at a time?

Self-Consciousness Endangers the Direct Attack

Self-consciousness in all probability will result from so direct a method. When a student is made emphatically aware that he is striving to transform his own personality, this self-consciousness divides his attention. While he tries to pay attention to the activity to which he is supposed to be devoting himself wholeheartedly, he is thinking, as Dewey says, "partly about what others think of his performances."³ The more enthusiastic a student becomes about superior personality, the higher his self-consciousness will rise. More and more energy will be diverted from the task at hand to the side issue of self-inspection and self-admiration. These attitudes retard development. Activities cannot contribute

adequately to personality unless the student enters into them with whole-souled devotion. Whenever a learner becomes self-conscious, his progress is blocked. It seems, therefore, that the directness of this method interferes seriously with the personality development which might come if the student could get into the whole activity without the encumbrance of undue self-consciousness. Paradoxical as it may sound, a person develops himself most effectively by forgetting himself—in the midst of a worth-while activity.

Furthermore, a student-teacher who is trying to develop *one* of his traits is in a peculiarly perilous position. He may be compared to the tight-rope walker who is learning a new trick. The balance in either case may be lost with disastrous results. The wise rope-walker pays close attention to his act and avoids dwelling upon what others may think of his performance. He knows that self-consciousness is fatal. He does not allow some professor to interrupt his act with shouted directions about his form. The rope-walker demands freedom to feel his own way undisturbed by considerations of himself as a performer. A similar caution may well be observed in developing a trait of superior personality. If co-operation is the new adjustment to be acquired, it merits the undivided attention of the student. He cannot afford to think about the impression he is making as a co-operator nor even look upon his activity as the practicing of a co-operation exercise. Unless such division of attention is avoided, slips are bound to occur. Taking a truly co-operative attitude involves a certain loss of self-consciousness. As Dewey remarks:⁴ "Taking an attitude is by no means identical with being conscious of one's attitude." The essential point is that in relatively few cases can a rope-walker or a personality-builder succeed until he forgets him-

self in his act. The first defect of a direct personality development method is that it gets in its own way. This kind of directness in approach blocks progress toward the real enrichment of personality.

Superiority and Inferiority Complexes Emerge

If the use of a direct method merely interfered negatively with the improvement of character, it might be safe to let each student-teacher discover this obstacle for himself. A still more serious danger appears when one considers the positively evil effects which arise from this method. A direct attack on one's own personality may bring in its train, not only self-consciousness, but also selfishness and egotism.

Consider how a student-teacher's character may change while he is pursuing a single trait, such as honesty, ambition, friendliness, a businesslike attitude, or refinement. According to the direct plan, each of these traits is to be acquired as a means to something else, namely, success. The teacher must show friendliness in order to become popular with his pupils, fellow teachers, and the pupils' parents. He must demonstrate his ambition and businesslike ways to impress the superintendent and the board of education with his superior qualifications. Honesty must be developed because "honesty is the best policy." In certain circles, refinement is also required for full approval. In all these activities the dominating aim is to "get on" in the teaching profession. Now, the purpose which directs an activity enters subtly, but with potent influence, into the qualities and persisting outcomes of that activity. To the degree that refined, friendly, or honest acts are performed mainly for the purpose of attaining personal success, selfishness will increase with each act. And as success is attained, egotism may emerge.

Thus, while the professor of education and his student-teacher are focusing on the development of this trait or that one, the whole character of the student may become more and more self-centered. A thickening cloud of egotism and selfishness will then cast a darker and darker shadow over all the minor traits.

Such unfortunate results are likely to follow from any scheme which disregards the fact that while one particular trait is being emphasized, other attitudes or traits are being affected inevitably. A superior personality produced in this one-sided way may resemble the output of cheap courses in salesmanship. Does any teacher-trainer, parent, or child want "successful" teachers who conform to the pattern of "ambition-initiative-forcefulness-thriftiness-magnetism" that sells the customer what he does not want and even makes him like it?

A closely related, although contrasting, difficulty arises when self-consciousness leads to feelings of inferiority rather than to egotistical superiority. Certain students who are already filled with self-conscious fears will surely be driven into deeper despondency by an overemphasis upon their particular defects. Unless the personality-development program provides for careful and continuous attention to the *whole* emotional and social condition of each individual, the plans for improvement may quite miscarry. A mature student may even become hysterical if forced to stand and speak before a class, although this assignment is made presumably in the interest of his personality development. Thus, an aggressive instructor who is animated by a sincere desire to improve the personality of his students may defeat his own ends. Self-consciousness, whether of inferiority or of superiority, is a danger that dogs the direct method.

Direct Character Building in the Public Schools

When we turn from the consideration of adult students to the problem of character building in the children and youths of our public schools, the dangers and defects inherent in the direct method of developing one trait at a time appear in magnified form. Consider how readily an eight-year-old boy may acquire a self-centered attitude toward acts of courtesy if these are emphasized in a direct and formal way. Instead of becoming kind and courteous in a thoroughgoing sense, he adopts certain superficial tricks of behavior to enhance his personality just as he puts on a pair of imitation cowboy chaps. The girl of eight may be instructed in refinement by direct methods with results no more beneficial to her than the fingernail coloring which she does in mimicking her elders. When children begin early to acquire superficial additions to their personalities, the possibility of promoting personality and fundamental character changes toward broad, social attitudes becomes exceedingly remote. The timid child is in a still more precarious position if any teacher or parent attempts to correct his shyness by calling his attention to this weakness. The general result of direct methods may be to drive children toward extremes in behavior—the timid toward inferiority complexes, the bold toward superiority complexes. Both groups of children move away from the healthy median attitude in which personal initiative is balanced by reasonable caution and thoughtful regard for others, instead of moving toward these desirable characteristics. Youths in the secondary school are affected by direct methods in ways which do not differ greatly from the effects observed among the elementary-school children below them and among the

student-teachers above them. It appears, therefore, that character and personality cannot be learned and taught adequately at any age until those responsible—be they parents, preachers, scout leaders, or teachers—abandon methods that are too direct.

False Psychology of Habit Underlies Direct Method

Why have direct methods, considering their evident defects, remained in use at schools and colleges as well as in homes and churches? The answer lies partly in the insidious persistence of a false psychology of habit formation. Many well-intentioned teachers and other responsible leaders are still confused by a discredited psychology which held that every habit is established in a certain fixed form by many exact repetitions.⁵ As one prominent advocate of direct character education has said, "We learn from psychology that habit formation is based upon repetition surcharged with satisfaction. The action must be repeated over and over again, and in the repetition pleasure must be felt."⁶ Too often in interpreting such statements, each habit is assumed to be separate from every other habit. This idea is based in turn upon a false physiological supposition that each habit is represented in the brain cortex by a neural pathway having a definitely restricted location. The newer view of habit, which is based upon more adequate physiological experiments and psychological studies, has called attention to the participation of the entire nervous system, and indeed of practically the whole body, in the establishment and maintenance of a single habit. Further, this more adequate view emphasizes the relation of habits to each other rather than their separateness. These facts, together with a fuller understanding of how ideas and ideals

function in the forming and stabilizing of many habits, have led to extensive modification of teaching methods in subject-matter fields. So the key to the building of character habits, as of habitual skills and knowledges, is really a comprehensive attention to many environmental factors as well as to numerous *related* conditions within the individual himself—especially his ideals. As Bode says, "Training in specific acts of honesty, truthfulness, etc., is not necessarily any more moral than training in the use of a typewriter."⁷ Thus, the more adequate view of habit goes beyond the selection of activities to be repeated, and takes into careful consideration the conditions under which the individual approaches and pursues his character-building experiences.⁸

Indirect or Incidental Methods of Character Building

A growing sense of the injurious effects of direct methods of character building together with a recognition of the fallacies in the habit psychology underlying it has provoked serious students of education to devise a less direct attack. The advocate of indirect methods explains that they consist essentially of the learner's entering a character-building activity with his eye not on his own personality, but upon the concrete end to be attained in the activity. For example, the learner may be trying to construct a useful article requiring industriousness and skillful application of tools to materials. Or he may be earnestly and joyfully engaged in an aesthetic production of poetry, plastic art, music, or dancing. Perhaps the learner is attempting the solution of an intellectual problem involving verbal discussion and thoughtful consideration of suggestions. Or, instead of producing anything, the individual as a consumer may be joyfully and appreciatively availing himself of the artistic production of

a poet, musician, or artist. In any of these types of activity the learner may be acting by himself. In the productive activities he may be co-operating with his classmates and teacher. But in any of them character and personality changes may occur without the teacher's referring to any particular trait. Likewise, the learner may undergo the experience and reach his goal without a single thought of how he is improving himself—and yet substantial, far-reaching improvement may occur.

When a parent visits a modern elementary school that employs such indirect methods, he is likely to receive the impression that character building is being neglected, since he may hear no mention of honesty, industriousness, or courtesy. On the walls of the schoolroom he may see no mottoes, such as he remembers from his own school days, that were designed to instill patriotism, workmanship, or truthfulness. Should the parent inquire of the teacher whether there are special periods devoted to discussion of difficult personality problems or of necessary character traits, he might receive from some teachers only a negative answer. A wiser teacher, however, will go on to explain that in an interesting, socialized activity program children acquire their personality-character education by indirect methods—and incidentally. Many parents will accept readily the new viewpoint, and perhaps even abandon direct admonitions to Sally and Tommy in the home in favor of devices for keeping the children busily engaged in pleasant, interesting, and harmless activities. A few thoughtful parents who recognize the advantages of the indirect over the direct procedure may still feel that an interesting activity program with its incidental effects should not be trusted too far. Perhaps they too are wise.

Another Essential: Intentional Choice of Activities

According to the description of the indirect method presented thus far, it might appear that one activity is considered as valuable as any other, provided that the learner pursues it with his eye upon the purpose or end to be attained. Does *any* purposeful activity build desirable character? By no means. Many purposes are antisocial, leading to activities that result in twisted character. Other purposes are narrow and frivolous. The point is that in reacting against direct methods of character building, teachers sometimes neglect their responsibility for choosing with discrimination among the activities available as means to indirect and incidental teaching. If a child is to be educated adequately, his parents and teachers must choose carefully the activities in which he will be encouraged to engage. We need to remember the two phases of the method problem in character-personality education: first, the choice of appropriate activities for each individual, and second, the whole-souled attitude of the learner toward his activities. Direct methods commonly neglect the second phase. Indirect methods are prone to forget the first in their concentration upon the second phase. The wise parent and teacher will seek a method which brings the incidental approach and the intentional choice of activities into helpful relationship.⁹

Democracy: Guide or Outcome in Character Building?

In attempting to choose among activities, the character-personality teacher may be tempted to fall back upon lists of separate traits or ideals such as have been compiled by the advocates of direct methods.¹⁰ A surrender of this sort would no doubt result in a confused vacillation between

direct and indirect methods. Another possibility lies in looking forward to the kind of society desired, with thoughtful consideration for balancing and relating characteristics in ways that will promote the chosen kind of social living. For example, the teacher who envisions a more democratic social organization both in the school and in the community life beyond is in a position to select activities on the basis of their probable contribution to the democratic way of life. Of course the teacher must be clear about the meaning of democracy. If he regards democracy as a form of social organization in which youths and adults learn to assume individual responsibility industriously, and at the same time to co-operate willingly and creatively in planning and executing projects through sharing increasingly in the common interests of the group, the teacher has a criterion for selecting activities appropriate for his pupils. When the teacher has such a guiding principle, the overemphasis upon this trait or that one is less likely to occur.¹¹ In addition, the consideration of democracy will suggest ways by which learners may come to identify themselves with activities, and yet not submit to dictatorship or isolate themselves in anarchistic individuality.

The democratic principle of sharing takes us one step further in the process of selecting activities in so far as it places emphasis upon shared responsibility. A child who is to become a member of a democratic society must learn to participate wisely in the choice of his own activities. His sharing in this responsibility is one aspect of his democratic character. Gradually, children and youths may learn thereby to evaluate the educational and social consequences of their activities. Certain personal defects will appear. Consequently, attention will be paid to their correction in

the selection and pursuit of the next activity in order that the activity—not the learner himself as such—may be more suitable and adequate in the social situation. Thus, the learner gradually builds his own character more or less consciously, not for the sake of superiority in character or personality, but for the sake of the group activity which contributes toward a more abundant life for all. This taking of responsibility for one's own development involves a shifting from incidental learning toward the intentional planning of one's own life from day to day. The intent or purpose becomes a part of the common life of the group, however, so that the individual regards himself as a means to a social end which includes the growth of others as well as himself.

Such thoughtfulness concerning one's own activities will not occur most fruitfully unless there is tactful guidance of the child or youth by parents, teachers, and other socially mature friends. Children in the elementary school need time to evaluate their activities in terms of ideals as well as in terms of further activities. Thoughtful consideration of the values achieved enhances the broad transfer of experience to wider fields.¹² Special emphasis may be placed upon the teacher's making as clear as possible the meaning of democracy in terms appropriate to the learner's social and intellectual ability. The process needs to remain informal, because formality is closely allied to the dangerous directness which has been criticized. Nor can marks be used safely as direct rewards for personality-character development. One of the most insidious trends in the current movement toward character education is the spread of a wage-scale marking system to include pupil attitudes. Rewarding an attitude, such as honesty or courtesy, is likely to

result in superficial demonstrations of the pretended attitude while the actual attitude acquired is one of hidden hypocrisy.¹³ Even democracy becomes a misleading ideal if the child or adult begins to do democratic acts just to show how democratic he is. Not a blind circle of loyalty to democracy *for its own sake* is desired, but a whole-souled willingness to contribute to a common task without taking an overweening pride in one's own democracy.¹⁴ Sharing in planning and accomplishing the social task must continue to be the center of thought.

Democracy appears, then, to be a guide to character building and personality development as well as the finest outcome of human ventures in social organization. On the one hand democracy may be considered the great personality-character builder. In democracies individuality is respected, freedom is safeguarded. But modern democracy in a complex society goes much further than the policy of leaving each person alone, or of giving everyone all the freedom possible so long as he interferes with no one else. Democracy has moved on from this negative attitude to the positive promotion of a co-operative life in which each person is guided—partially by himself—into appropriate contributions as he shares in those social and economic activities that enhance the development of other persons. Indirectly the activity of each individual promotes the strength of character of other individuals. On the other hand, it might be said that democracy requires the strongest character and the richest personality. Each individual must take more responsibility for suggesting new ideas and must share wider interests than in a dictatorial system. The contribution of democracy to personality and the demands of democracy upon character are just two sides of the one proposition that

democracy can be attained but slowly, because of its great complexity and high quality. Consequently, the methods of personality-character development appropriate for democracy are more subtle and indirect than those to which autocracies and dictatorships in school and out have become inured.

NOTES

1. See Chapter VII for a discussion of the heredity-environment problem. Certain reasons for deferring the discussion of heredity until the student has considered carefully the functioning of habits in human beings are given by Dewey in *Human Nature and Conduct* (New York, Henry Holt and Company, 1922), pp. 89-94. The present chapter continues to apply and amplify the principles of habitual action set forth in Chapter V.

2. Lancelot, W. H., "Developing Students in Traits of Personality," *Educational Administration and Supervision*, May, 1929, pp. 356-361. A description of the direct methods used with student-teachers at Iowa State College.

3. Dewey, *Democracy and Education*, New York, The Macmillan Company, 1916, p. 204. The quotation is from Chapter XIII, "The Nature of Method," which emphasizes the need of straightforwardness and integrity of purpose in the learner to replace self-consciousness and "a confused and divided state of interest in which one is fooled as to one's own real intent." The main point of the chapter is that an effective method involves so intimate a unity of the learner with his materials in the active task that his consciousness of himself except as a means to the end disappears.

4. *Ibid.* Unless the student reads thoughtfully, he may be confused by Dewey's advocacy of "directness" in this paragraph. Dewey is referring to the directness or whole-souled approach of the learner *toward his task*, while the "directness" criticized in my chapter is a directness of approach *toward the learner's own personality characteristics*. The two uses of the term *directness* must be sharply distinguished.

5. See Chapter V for a criticism of the concept of fixed habits.

6. From Charters, W. W., *The Teaching of Ideals*. By permission of The Macmillan Company, Publishers. New York, 1928, p. 320. The difficulty of bringing habits and ideals into functional

relation is indicated again by the following quotation (p. 347): "The methods of developing an integrated personality must be consistently and assiduously applied in school life as a *supplementary* influence to *counteract* the tendency toward dissociation arising from teaching ideals by applying traits to specific situations. The development of character demands equal emphasis upon integration and specific learning." (Italics not in original.) If habits were formed in the light of an intelligent purpose or ideal, would such "supplementary" integration be necessary?

7. Bode, Boyd H., *Conflicting Psychologies of Learning*, Boston, D. C. Heath and Company, 1929, p. 273. In this chapter entitled, "Education from a Pragmatic Point of View," particular emphasis is placed upon the reinterpretation of habit as it contributes to a more intelligent kind of moral education.

8. Since character building involves the intelligent evaluation of situations as well as the acquisition of habits, the relations of habit and intelligence need to be clarified. This problem is attacked in Chapter IX.

9. See Chapter IV for a discussion of the relations between the incidental and intentional aspects of the learning process.

10. Charters, *op. cit.*, pp. 61ff., 89.

11. A further consideration of democracy as a guide in adjusting diverse ideals and aims occurs in Chapter XII.

12. Neumann, Henry, *Lives in the Making*, New York, D. Appleton-Century Company, 1932, Chap. XII. This chapter on "Direct Moral Instruction" is an able and practical treatment of the values and pitfalls of systematic discussion with young people of their social experiences. In another place, Dr. Neumann points to related dangers in the attempts to evaluate character statistically: "Some Doubts about Character Measuring," *Readings in Educational Sociology*, E. George Payne, ed. (New York, Prentice-Hall, Inc.), Vol. II, pp. 222-228.

13. See Chapter III, the section entitled, "Workmanship versus Mark-Getting and Money-Making," p. 53.

14. Otto, M. C., *Things and Ideals*, New York, Henry Holt and Company, 1924, Chap. III. In this chapter on "Right for Right's Sake," the author points to the danger that an emphasis upon *loyalty* to an *abstract ideal* "leaves the concrete object of that loyalty to be determined by chance." This warning may be applied to "democracy" in so far as it becomes an abstract symbol like "truth" and "beauty." Chapter II, "The Two Ideals," depicts the difference be-

tween helping to create a new world and seeking success in possessing a piece of the old one. Shall a teacher concentrate upon personality development for successful adjustment *to* his community or shall he build a character that makes him a leader in the democratic readjustment *of* his community? Chapter IV, "Right by Agreement," opens the way toward concrete moral excellence through a democratic, co-operative venture.

CHAPTER VII

Conflicting Views of Heredity

"Can human nature be changed?" This question is thrust at educators whenever they propose methods for modifying in any fundamental way the personality and character of youth. Often the questioner's tone implies grave doubt concerning the possibility of actually improving the deep-seated characteristics which are assumed to underlie the behavior of a single individual. Still greater doubt is expressed against proposals for the reconstruction of the whole social group through the establishment of a new political or economic order. Even the advocates of gradual change from a competitive business system toward a more co-operative way of life encounter the objection that it is useless to work against such an age-old characteristic of human nature as rivalry. The objectors, who are sure that human nature is unchanging, may argue from the fact of evolution that children are born with an animal nature derived from a competitive struggle in which only the fittest or strongest fighters survive. According to this view, competition must remain the predominating characteristic of society, and of any sensible educative method. Although few persons adopt this extreme position of doubt concerning human betterment, many people believe that heredity places very serious limitations upon progress. Leading educators are still in conflict over this question; according to Dewey, some

assert that the elements of human nature are fixed and constant, while others see only common human needs that are ever changing as intelligence rebuilds society.¹ Teachers and parents are often fearful and uncertain concerning the evil effects of a child's heredity, while under other circumstances they err on the side of an overconfident following of what they take to be the child's original nature. Until parents and teachers clarify their mutual understandings of heredity upon a sound scientific basis, they will encounter continuous difficulty in building a democratic educational program.

The point of view taken concerning the possibilities of social improvement has long divided thoughtful citizens into two opposing camps—the conservative and the progressive. As Thomas Jefferson clearly stated when late in his life he wrote to John Adams:²

One of the questions . . . on which our parties took different sides, was on the improbability of the human mind in science, in ethics, in government, etc. Those who advocated a reform in institutions . . . maintained that no definite limits could be assigned to progress. The enemies of reform on the other hand denied improvement and advocated steady adherence to the principles, practices, and institutions of our fathers which they represented as the consummation of wisdom and the acme of excellence beyond which the human mind could never advance.

Wasteful conflicts between the opposing groups whom Jefferson called the advocates and the enemies of reform have occurred often because of misunderstandings and consequent confusion about human nature. Even today if almost any group of students or teachers or parents start an argument, they will divide into conservative exponents of heredity and confident advocates of the importance of en-

vironment, when they should be working together on a constructive program of educative activities based upon the ample scientific evidence available for all. In order to clear away the confusion and conflict, let us examine briefly a few of the outmoded notions of heredity that still influence common thinking in America. This analysis will throw light upon the significance for education of recent findings in genetics.

Human Nature: A Mixture of Inherited Good and Evil?

Today many parents and teachers still refer to human nature as a mixture of good and evil, implying that every child is born with a number of desirable traits or tendencies which are accompanied by several undesirable ones. The origin of such muddled thinking lies far back in an eighteenth-century conflict occurring long before the evolutionary doctrine of the descent of man had been promulgated by Darwin. In the years immediately preceding the American Revolution, Jean Jacques Rousseau propounded in the French tongue a revolutionary view of human nature and thereby of education. Rousseau contradicted the prevailing church view of man as a fallen and evil creature by asserting that infants were born full of natural goodness. According to the church catechism, the child was born in sin and must undergo miraculous conversion, while for Rousseau the natural growth of the child would enable him to attain the potential perfection with which he is endowed by nature at birth. From the former view the education of a child seems to involve much repression of evil tendencies, while according to the latter, freedom for the development of his good tendencies seems the primary requisite. Thus, late in the eighteenth century some writers began to use the word

"natural" with the definite implication of goodness and desirability that still persists in the language of the home and classroom.

As commonly occurs following such a controversy between intellectual leaders, the ordinary individual gradually came to accept a confusing mixture of the two views. Each child was supposed to have a set of good traits to be developed and a set of bad ones to be repressed. Teachers who assumed that children varied in their proportion of good and bad traits adopted what they considered to be appropriate degrees of repression and freedom for the different individuals. Parents adjusted their emphasis upon freedom and repression according to the behavior of their children, or perhaps more frequently according to the parents' own emotional inclination from day to day. The underlying problem of whether either goodness or badness could be transmitted through biological heredity from parents to child was not even considered, for this was a period in which thinking was much restricted by the lack of biological knowledge concerning both the evolution of the human species and the effects of heredity.³ Today all this is changed! We live in a period when the evolution of man is an accepted fact and new discoveries in genetics are broadcast even in the daily newspaper. Anyone who now speaks of inheriting good or bad traits must face the scientist's questions: *How* can ideas about honesty, courtesy, and democracy, or ideals of truthfulness, kindness, and co-operation acquired by parents or earlier ancestors be transmitted biologically to children? *How* can any vague tendencies toward or away from such ideas or ideals be transmitted? In addition the social philosopher may ask: Does anyone know whether an activity is good or bad, socially desirable or undesirable?

Misinterpretations of the Theory of Evolution

The problem of changing human nature moved away from the unscientific speculations of the eighteenth century into a new phase when Charles Darwin published *The Origin of Species* in 1859. Soon scholars on this side of the Atlantic realized that Darwin's mass of evidence made clear man's extremely lowly origin, which holds him down to the level of an animal species. This evolutionary doctrine was resented and opposed for a time by many persons, such as church leaders, who were concerned lest all hope of improving mankind be abandoned. They feared that an acceptance of the evolutionary theory would involve a discouraging acknowledgment that man's inherited traits were only low animal traits. This fear was justified in some measure by the overemphasis upon the theory that each individual repeats the stages of biological evolution, upon the presence of animal-like instincts, and upon other theories of heredity which were widely accepted in the years that followed the triumph of the evolutionists over their well-intentioned opponents. A brief consideration here of these biased views is justified because vestiges of them still persist among teachers and parents. Furthermore, the educational implications of modern genetics can be seen more clearly against this contrasting background of notions which are passing into the discard.

The recapitulation theory, which states that the individual lives over again in his lifetime the physiological development and activities of his ancestors, has been given educational misinterpretations which persist in many minds to the present day. At the turn of the twentieth century, G. Stanley Hall had become the chief leader in the scientific study

of childhood and at the same time a strong champion of the recapitulation view. Hall conceived of child development as a series of stages corresponding through recapitulation to the history of the child's ancestors—subhuman as well as human.⁴ According to this view the child inevitably re-enacts the behavior of lower animals and of primitive savages. The word “natural” acquired a tone of inevitableness, so that the desirability of the natural was accepted more as a necessity. A theory called “catharsis,” or “purging,” growing out of the recapitulation idea, suggested that every child be permitted to practice freely any undesirable, and supposedly inherited, forms of behavior, in the pious hope that this exercise would carry out of the child the characteristics of the lower-animal stage or the historic epoch of mankind and thus enable him to reach a higher level of mind and morals. “Wild oats must be sown!” was given for the time being a pseudoscientific sanction. These arguments for an educational program following recapitulation trends neglected the fact, however, that even the physiological development of species has involved a continued reduction and elimination of earlier ancestral characteristics. For example, the fish stage of man's ancestry has been reduced to mere vestigial gill slits in the developing embryo. Until more definite positive evidence of recapitulation in actual behavior is presented by scientists, it will be wiser for teachers and parents to look forward and to plan carefully for more social forms of child behavior than to look backward in gloomy expectation that ancestral forms of antisocial misbehavior will reappear. As later discussion will show, modern genetics does not warrant the use of explanations so simple as direct recapitulation by a child of his faraway ancestors' activities.

Controversies over Human Instincts

When the evolutionary doctrine came to be accepted without question in collegiate circles, educational psychologists adopted along with the recapitulation theory the companion view of definite, separate human instincts, similar to, if not identical with, animal instincts. The development of a child was assumed to be determined by the emergence from year to year of numerous distinct instincts such as curiosity, rivalry, pugnacity, constructiveness, sociability, and acquisitiveness. The problem of education appeared to be that of encouraging the more desirable instincts while modifying the conditions under which the less desirable were expressed. In spite of the lower-animal background of instincts many educators held on doggedly, nevertheless, to a glimmer of hope that human instincts were somewhat modifiable.

This vague hope of human betterment began to receive, early in the twentieth century, sound scientific support in an indirect fashion through the vigorous attack upon the instinct theory. These criticisms of the instinct hypothesis were made by different groups of scientists from several diverse angles. The biologists themselves pursued the investigation of particular animal instincts until they discovered in many cases the relations between the physiological conditions in the animals and the environmental situations. These relations were seen to be the actual underlying causes of the behavior. Explanations in terms of scientific facts replaced in biological writings the mere naming of mysterious instincts. So even the layman in science came to realize that calling an action instinctive was more like stating a problem to be solved through research than the achieve-

ment of a sound explanation. The biologists also learned to note the adjustive action of animals under varying conditions, and thereby reduce the earlier overemphasis upon the fixity of instincts.

The sociologists attacked the human instincts in more direct fashion.⁵ They demonstrated that as far as human beings were concerned much of the behavior which had been called instinctive was really the result of long-established social customs. A competitive way of life, for example, might be the result of a long economic history, while a co-operative economy might arise from different conditions, without implying any differences in the biological heredity of the two groups. Historians followed the sociologists' view by rewriting the history of the Grecian Golden Age, of the expansion of the British Empire, and of industrial development in the United States with much less emphasis on the hereditary qualities of the peoples concerned and much more upon their fortunate economic, cultural, and political opportunities.

The behavioristic psychologists came still closer to the problem of instincts by reducing their descriptions of the hereditary behavior of infants to a few relatively simple emotional reactions, such as the fear reactions of crying and creeping away when suddenly disturbed by the removal of support or by a loud sound, or the angry response of struggling and crying when movements were too closely restricted. In contrast to these reactions to painful events, it was found that cuddling and stroking produced not only pleasure but affection for the nurse or mother. Experiments with infants led the behaviorists to the conclusion that nearly all fears, angers, and affections, which formerly had been credited to special instincts, were really acquired or

learned through a conditioning process during infancy or early childhood.⁶ As a result, the student of childhood turned in search of a scientific description of varying physiological conditions which although complex are not mysterious. Furthermore, many of these physiological conditions appeared susceptible of much modification in the interest of desirable behavior.

The controversy over instincts had reached an advanced stage when, in 1922, John Dewey published *Human Nature and Conduct*.⁷ In this important book, Dewey showed how hazy and forced are explanations that make direct reference to native powers or instincts in accounting for complicated human events. He pointed out that conservatives generally attribute the long continuance of social forms, political organizations, and economic systems to natural human characteristics instead of seeing how definitely these social habits depend upon age-old customs handed down from generation to generation. Just as physical science could not advance through referring its problems to separate forces, such as combustion or heaviness, so educators in order to advance must give up the idea of separate instincts, and turn to investigate the many factors entering into any event in a child's behavior. After Dewey's analysis of the problem it seemed absurd for a teacher to refer to separate instincts as causal forces or to human nature as unchangeable, just as no trained biologist after Darwin's day would talk of the special, separate creation of different species. Instead of searching for the exact elements which are supposed to hold human nature to a low level, Dewey and his co-workers turned toward social experiments in the modification of human nature, especially toward a new type of social-activity school for children.

Do Hereditary Mechanisms Predetermine Characteristics?

Those teachers who had a profound respect for biological science did not find the escape from emphasis upon heredity so easy as the preceding paragraphs might suggest. While the sociologists, psychologists, and educators, with the help of the biologists themselves, were undermining the old instinct theory, a new and more exact explanation of the hereditary mechanism came to the fore. Soon after 1900, biological investigation revealed the carriers of heredity to be small chemical packets called *genes* grouped together in microscopic masses called *chromosomes*. Then followed specific diagrams of the orderly interaction of the gene substances whereby harmonious growth of the embryo resulted. In attempting to simplify the new theory of heredity, some of the biologists led many laymen, including educators, into the notion that each chemical packet or gene carried a particular characteristic, called a *unit character*, such as eye color, hair color, or even head shape, or perhaps nose size and profile. Teachers commonly accepted as strictly true the statement that the particular bodily characteristics of a child and even "well-defined tendencies to future behavior" are determined "at the moment when the ovum and spermatozoon which are to produce him have united."⁸ Likewise, students of education were taught that "contained in the germ cell are certain elements or 'determiners' (genes) out of which the various bodily organs and functions develop. Certain determiners grow into certain sense organs, others become particular bones, others become teeth and so on."⁹ It was easy for hereditarian prejudices to lead from this view—that the body was made up of "unit characters" each produced from a particular gene—to the

further assumption that behavior characteristics, such as pugnacity, jealousy, or even deceitfulness, were likewise transmitted by certain ill-omened genes. If human behavior is passed on from generation to generation through the genes, which are biologically protected from environmental influences, and even from any modification while in the body of the parent, then the hope of changing human nature for the better must go into decline again.

Fortunately for human hopes, the biologists pursued their studies of gene action until they had undermined the hypothesis that particular hereditary elements, such as genes, produced either physiological unit characters or particular behavior attitudes.

There is, indeed, no such thing as a "unit character" and it would be a step in advance if that expression should disappear. . . . This theory of representative particles is gone, clean gone. Advance in the knowledge of genetics has demonstrated its falsity. . . . It is not true that particular characteristics are in any sense represented or condensed in particular unit genes.¹⁰

Thus, eminent biologists warned students of education against any statements which imply that human behavior is *predetermined* by a simple correspondence between particular "representative particles," or genes, and particular actions, or even a correspondence with general characteristics like mathematical or musical ability.

Inheritance Not Direct But by Interaction of Genes

Parents and teachers cannot afford, however, to disregard any biological discovery which throws light upon the sources of the great differences among children found in every schoolroom and often in a single family. The genes are

still too influential to be ignored, even though the method of their operation is not so simple and direct as the unit-character view implied.

It is not correct . . . that each particular characteristic is represented by a single gene. On the contrary to produce even so simple a characteristic as the color of the eye, many genes must interact. . . . Any feature or characteristic, structural, physiological or mental, can be changed or made defective by altering any one of the many different genes that co-operate to produce it. . . . The essential point is that in the development of any individual all the thousand genes interact.¹¹

This substitution of the theory of interaction among many genes for the earlier assumption of one-to-one correspondence between particular genes and particular characteristics suggests the widespread changes which may occur in a child's behavior through an alteration in any one of a thousand co-operating factors. In both biological development and social change, the relation between causal factors and results is indirect and complex. No one factor is in itself sufficient to produce the result, although its *absence* may result in serious retardation.¹²

The oversimple interpretation of gene action is revised still further by the discovery that the diverse cells of the body do not differ in the genes they contain. Jennings points out that as development occurs, at each cell division each chromosome divides, every gene divides, and every cell gets the entire set.¹³ Hence, in the human being every one of the millions of cells has in it the twenty-four pairs of chromosomes characteristic of man, and so each cell contains the same set of probably a thousand or more different genes. Thus, the difference between a nerve cell and a muscle cell does not depend upon a difference in the genes

they contain, but must be sought in *other* differences in bodily conditions.

Environmental Conditions Participate with Genes

If the new genetics presented nothing more radical than the orderly interaction of multitudinous genes, hereditary determinism would still have a strong case in spite of complications. But environmental influences begin immediately (at the very moment when the ovum and spermatozoon have united) to participate with the genes in the process of differentiating the diverse parts of the body. In the early stages of development what each cell produces depends on its *relation in position* to other cells. Since relative position is a determining factor, if a group of cells is cut off and placed in a different position before an embryo has developed far, surprising results appear.

Now the cells that would have produced skin produce spinal cord; those that would have produced eyes now give rise to brain, and so of all the others. . . . It can be proved by such experiments . . . that any individual cell can take part in the production of any of the structures we have mentioned, or of many others.¹⁴

These varied possibilities in the development of the cell do not, of course, continue indefinitely. Soon its form and function are determined by its own development in a given position, but the point is that the environmental factor of position participates in the differentiation quite as definitely as do the genes which interact with the cytoplasm of the cells during development. Neither heredity (genes) nor environment (position) is the sole infallible determiner.¹⁵

When under the guidance of modern genetics the older

predetermination theory is abandoned, a new view of physical and intellectual growth emerges. The teacher may come out of despondent fatalism concerning backward children into a more sanguine experimental search for factors which will greatly aid them. A new hope for progress in human civilization may be stirred.

Endocrinology May Raise Defectives to Normality

Further light and hope have come through the study of the internal secretions from certain glands. The fact that the effect of the genes on the body of a child is transmitted through hormones, substances manufactured in the various endocrine glands and transported in the blood, is of tremendous import in the modification of physical growth and ultimately of behavior capacity and actual ability. Scientists are now able to manufacture chemicals which correspond very closely with certain hormones, and these chemicals perform more or less adequately the functions of the endocrine materials which in normal individuals come from the glands developed through gene action. Thus, when an individual inherits a defective combination of genes, causing the thyroid gland to be defective, the resultant idiotic dwarf or cretin may be fed manufactured chemicals as a substitute for the thyroid and thereby for the genes themselves. The defective child, then, may become through early and skillful care "a normal child, with normal intelligence."¹⁸ The possibilities which are forecast by recent progress in endocrinology suggest that in the future the consideration of remedial measures will more and more supersede earlier overemphasis upon the permanent classification as defectives of children who gave immediate evidence of low mentality.

Individual Differences Must Be Respected

One must guard, however, against the persuasive environmentalist who ignores the actual physical differences produced by hereditary materials. The substantial experimental evidence that the trend of an individual's life may be greatly modified, especially during infancy, by the environmental conditions has led to a biased view of the relation between hereditary and environmental influences. Behavioristic psychologists, like John B. Watson, have neglected hereditary differences in stating their educational policies. As Jennings points out, Watson's assertion that he *can* train "normal" or "healthy" infants "to become any type of specialist" does not assure us that this is the most appropriate treatment for individuals who actually do differ from each other.¹⁷ Parents and teachers who want a sound, scientific basis for their treatment of and hopes for their children must never forget that differences among children in their sets of genes do result in differences in each individual *as a whole physical organism*.¹⁸

Observation and experiment have shown that . . . different individuals start with diverse sets of these substances (genes). . . . No two individuals, in such an organism as man, are concocted on the same recipe (save in the rare cases known as identical twins). It is clearly proved experimentally that the diverse combinations yield structural and physiological differences of all types and grades, including diversities of behavior, in what we call mentality.¹⁹

The action of a particular gene is not limited to a particular part or constituent of the body. Many single genes produce far-reaching effects, influencing the entire constitution and functioning of the individual. . . . T. H. Morgan has expressed the opinion that every gene affects the entire organism.²⁰

The facts of gene action warn us that an overemphasis upon the effectiveness of environmental stimuli is quite as misleading as the deterministic assumptions of hereditarians. In both these biased theories the design of the child's life is laid out in advance—in the one case by natural heredity and in the other by the adult parent or teacher who proposes to control the environment. In contrast, the hope of democratic human progress lies in a continuous respect for genuine growth of individuality. Parents and teachers who understand biological heredity will recognize and respect the differences among children from birth onwards without overemphasizing either the limitations or the possibilities which lie in the particular brain and body equipment of each child.

Overemphasis upon Innate Creativeness

The most recent refuge for those who overemphasize heredity is offered by a few progressives who misinterpret child creativeness. According to their well-meant but careless statements, a child's creativeness appears to be due solely to some inborn talent which will burst forth at an early age if he is given freedom. Creative teachers bewilder students of education with too much talk about the "mysterious recesses of personality" out of which come artistic products owing to "inner necessity."²¹ As a matter of fact these same teachers are contributing to the creativeness of children through placing them in a rich environment full of diverse materials and stimulating situations appropriate for the particular individuals concerned. While creativists are remaking the child's environment, they are *talking* mysteriously about heredity—to the confusion of parents, teachers, and children. The peculiar adjustment between human abilities

and social surroundings that eventuates in an artistic individual with an artistic product may never be understood fully, but a clearer understanding comes from studying the child's behavior in the midst of varying social situations than by trusting to a mysterious inborn talent.²²

Modern Biology Frees Human Nature

What conclusion can we reach concerning the relation of progress to heredity? Evidently no guarantee of progress comes from the general theory of evolution, for the extinct species give evidence that evolution does not even result in the preservation of all species. Who can demonstrate biologically that man is destined even to survive, not to say improve? Furthermore, our present knowledge of genetics does not put us in a position to make any considerable modification even in general health, emotional balance, or brain quality.²³

These conclusions are negative. But the negative answer has an important positive aspect. Human behavior is not bound to definite, instinctive trends, such as those belonging to lower-animal species. As the child is not born bad, neither is he born good. He is just born healthy and active. Although his bodily equipment is derived from an animal heritage, that heritage goes only so far as to provide energy and functioning organs—eyes, hands, and brains. Furthermore, the complexity of inheritance mechanisms assures us that the next generation will have as adequate physiological equipment as the present generation. Even if intellectually superior persons of one generation stop breeding, the reduction of genius in the next generation would be extremely slight.²⁴ How these physical gifts are used depends upon the individual as he lives in a certain social environment.

How far a ten-year-old boy can jump and how complex an idea he can grasp depends in considerable measure upon the whole evolutionary history of animal life and upon the particular combination of genes which he has. Which way the boy jumps or whether he jumps at all, and what ideas he grasps, depends upon conditions which are not definitely determined by human heredity. In fact, an understanding of biological heredity assures positive freedom to the parent, teacher, or child who can envision a new way of action either as an individual or in co-operation with others. Our hands are free. What we do with them remains an ever-present problem.

Humanity Responsible for Changes in Human Conduct

What then of the original question: "Can human nature be changed?" If you mean by human nature the physiological equipment of the child at birth, the answer is negative. On the other hand, if you believe, as careful students of education and culture do today, that human conduct can be changed, the answer is affirmative. The shape of a child's hands and the color of his eyes, or even his skin color do not determine whether he will compete against or co-operate with his classmate. His organs may be used for either purpose. Unless he has a fair equipment of brains, it is not likely that he can either compete or co-operate adequately. What adjustment of competition to co-operation occurs in a particular school and community depends upon the experience and insight of the individuals concerned—children, teachers, and parents. In other words, conduct is continually being changed, but not always for the better. Such broad changes in conduct, especially when they alter whole

communities, are in effect changes in human nature. But after any change has occurred, its preservation is not guaranteed by any biological modification of the genes. Characteristics of conduct are not transferred from parent to child through the genes, but through the social environment. The fact that children are usually brought up with their parents is constantly confusing the careless thinker because he does not differentiate the effects of home environment from those of biological heredity. In the family, in the school, on the street, human nature is being remade daily. The responsibility for promoting and preserving the more desirable modifications is a continuous one. Human nature is free, but since it is free from definite conduct trends, it becomes thereby responsible to itself for its own conduct. The escape from the misleading psychologies of fixed heredity and fixed habit opens the way toward a psychology of adjustable intelligence and human responsibility.²⁵

Democracy More a Social than a "Natural" Outcome

It is clear then that the annoying restrictions upon education and human progress lie in man-made social traditions rather than in a "Nature" created or in a "naturally" evolved trend. Likewise, the progress which we see should be credited to man—the most intelligent form in nature—rather than to nature directly, whether spelled with a pre-Darwinian capital *N* or a modern biologist's lower-case *n*. Even democracy does not rest directly upon biological necessity. Our forefathers created the ideal of democracy. We must be ever on our guard if we wish to preserve and improve democracy. The free scientific research, which democracy fosters, has demonstrated that heredity does not

bind us to either anarchy or autocracy. Furthermore, democracy is not the special privilege of a particular racial stock.²⁶ Democracy is open to all humanity; different races and diverse individuals may come to share in common interests. If we look critically at democracy in theory and practice, we may from time to time discover ways of modifying its forms of social organization so that they widen the area of common purposes among men. Whenever thoughtful teachers, wise parents, and other leaders venture to build a more co-operative, democratic life in any community, they will not find inherited human nature blocking the way.

NOTES

1. Dewey, John, "Rationality in Education," *Social Frontier*, December, 1936, p. 71. In this article Dewey compares the view of human nature expressed by President Robert M. Hutchins of the University of Chicago in *The Higher Learning in America* (Yale University Press, 1936) with that of Lancelot Hogben's *The Retreat from Reason* (London, Watts and Company, 1936). The former seems quite sure that the elements of human nature are fixed and constant, while Hogben emphasizes the common *needs* of men which are growing, not fixed, because in the concrete they and the means of satisfying them change their content with every change in science, technology, and social institutions.

2. From Beard, Charles A. and Mary R., *The Rise of American Civilization*, rev. ed. By permission of The Macmillan Company, Publishers, New York, 1933, p. 456. The authors show how the founders of American political institutions were divided between the idea of human progress and the belief that human nature was immutable. The actions of political leaders from the time of Thomas Jefferson and John Adams to the present have been affected by their views and confusions in this area.

3. Thayer, V. T., *The Passing of the Recitation*, Boston, D. C. Heath and Company, 1928, Chap. IV. In this chapter, "Learning as an Active Process: Its Pre-Biological Formulation," an analysis is made of the contributions and limitations of Rousseau, Pestalozzi,

and Froebel in the movement toward freer activity for children. These early speculations did not square with the biological facts discovered later.

4. *Ibid.*, Chap. V. This chapter follows the preceding into a critical analysis of the biological formulation of learning as an active process under the leadership of G. Stanley Hall. This period is marked by confusion over the recapitulation of lower animal traits and the transmission of characteristics of barbarian human ancestors according to the culture epochs theory. For a consideration of an educational theory closely related to the recapitulation concept of distinct steps in growth see Chapter XI, the section entitled, "Will the Growth-Stage Theory Bring Harmony?" p. 237.

5. Bernard, L. L., *Instinct: A Study in Social Psychology*, New York, Henry Holt and Company, 1924. The sociologist finds that his science pushes human instincts into the discard. For a vivid statement of the sociologist's point of view, see: Zorbaugh, Harvey W., "Original Nature," *Readings in Educational Sociology*, E. George Payne, ed. (New York, Prentice-Hall, Inc., 1936), Vol. I, pp. 74-82.

6. Watson, John B., *Behaviorism*, rev. ed., New York, W. W. Norton and Company, 1930, Chaps. V and VI, "Are There Any Human Instincts?" The psychologist answers his question negatively. The few distinct, native emotional reactions presented by Watson have been reduced still further by later studies. For evidence against the separation of fear from anger see: Sherman, Mandel and Irene Case, *The Process of Human Behavior* (New York, W. W. Norton and Company, 1929), Chaps. V and VI; Stoddard, George D., and Wellman, Beth L., *Child Psychology* (New York, The Macmillan Company, 1934), Chap. XIV; Brooks, Fowler D., *Child Psychology*, (Boston, Houghton Mifflin Company, 1937), Chap. X.

7. Otto, M. C., "Philosopher of a New Age," *Social Frontier*, May, 1937, pp. 230-233; "John Dewey's Philosophy," *Social Frontier*, June, 1937, pp. 264-267. In these two articles on Dewey's contribution to American thinking, his interpretation of evolution as opening the way for human intelligence is stressed. Mr. Otto has said elsewhere that Dewey's *Human Nature and Conduct* seems to him to have a place in the field of character education analogous to that of Darwin's *Origin of Species* in the biological field. The latter gave cultural momentum to the theory of biological evolution; the former has introduced driving power into a comprehensive program of cultural change by means of intelligence.

8. Thorndike, E. L., *Educational Psychology, Briefer Course*,

New York, Teachers College, Columbia University, 1915, p. 2. On the following page the author refers to "original connections." For criticism of this view of "original connections" between stimulus and response or "pre-formed $S \rightarrow R$ bonds" see Note 15 below.

9. From Gates, A. I., *Psychology for Students of Education*. By permission of The Macmillan Company, Publishers, New York, 1923, p. 111. For criticism of "determiners" see Note 15 below.

10. Jennings, H. S., *Prometheus or Biology and the Advancement of Man*, Today and Tomorrow Series, New York, E. P. Dutton and Company, Inc., 1925, pp. 17f. This book of 86 small pages is a very clear exposition of the issue by an authority. The student may make his first approach to the new findings concerning heredity and environment by reading this simple and sound description with its implications for the modification of human conduct.

11. Jennings, H. S., *The Biological Basis of Human Nature*, New York, W. W. Norton and Company, 1930, pp. 16f. This substantial volume carries the reader through the problems of heredity in non-technical language.

12. The lag of applied psychology behind the discoveries of biology may be illustrated again by an oversimple statement of the relation between genes and particular traits: Ruch, Floyd L., *Psychology and Life* (New York, Scott, Foresman and Company, 1937), pp. 119f. "Each gene carries a unit factor of heredity. That is to say, each gene is composed of some substance or contains some structure whose presence is absolutely necessary to the development of a particular trait of structure or behavior. The whole heredity of the individual consists in many traits, each determined by a gene, or a pair of genes, or a group of genes." As the student might suspect, this narrow view of heredity corresponds to an emphasis upon "a neural pattern or series of connections between receivers of stimuli and organs of response" said to underlie each "behavior pattern." (p. 33) See my Chapter V, the section entitled "Old and New Physiological Theories of Repetition," p. 105.

13. Jennings, H. S., *The Biological Basis of Human Nature*, p. 86.

14. *Ibid.*, p. 95.

15. Thayer, *sup. cit.*, Chaps. VI and VII. In these chapters Thorndike's "pre-formed bonds" and Gates' "determiners" are criticized for the misleading educational implications that flow from them. In 1930 Gates revised the text criticized by Thayer in 1928. Although Gates omits the dogmatic statement of the 1923 edition concerning "certain determiners" and "certain sense organs," and

although modifying phrases are added, such as "to some extent" and "at least within limits," still traces of "predetermination" remain. "All organs making up the human body issue from determiners in the union of male and female germ cells. . . . The structures comprising this organism are believed to be determined, at least within limits, by elements present in the fertilized egg cell. This is believed to be true chiefly for two reasons. First, in the case of simple organisms such as a certain much studied fruit fly, the elements, or rather certain groupings of them, can be observed under the microscope and their tendency to issue into certain bodily traits has been verified by observation. Second, in the case of human beings, the resemblances of offspring to each other and of offspring to parents are such as to suggest strongly that many human traits are to some extent predetermined in a similar way by elements in the human germ cell." (p. 71f.)

Now if organs "issue from" hereditary elements, it is quite as true that they "issue from" relative position and cytoplasm. Not one of these factors is solely responsible, so none of them have any special right to the name "determiner." And what is the meaning of "at least within limits" or "to some extent" when connected with "predetermined"? If determination has occurred, that is settled, and if not, then it is misleading to use this word however modified. Research indicates that determination of structural differences may be long delayed. What then is the likelihood of predetermination of behavior with a growing, learning organism in a changing environment?

16. Jennings, *Biological Basis*, p. 118.

17. *Ibid.*, pp. 179f. For statement criticized see Watson, *op. cit.*, p. 104.

18. Goddard, Henry Herbert, "The Gifted Child," *Readings in Educational Sociology*, E. George Payne, ed., New York, Prentice-Hall, Inc., 1936, Vol. II, pp. 339-345. A pointed statement of the necessity of providing in a true democracy public-school privileges adapted to the needs of the gifted as well as the average or the mentally defective children.

19. Jennings, *Biological Basis*, pp. 1f.

20. *Ibid.*, p. 107.

21. Mearns, Hughes, *Creative Power*, Garden City, N. Y., Doubleday, Doran and Company, 1929, p. 256.

22. For a further discussion of the relation between the "inner impulses" and the "outer conditions" in creative activities see Chap-

ter X, the section entitled, "Is Orientation Inward, Outward, or Both Ways?" p. 217.

23. Jennings, *Biological Basis*, Chap. X.

24. *Ibid.*, pp. 218ff.

25. See Chapters VIII and IX.

26. Boas, Franz, "The Effects of American Environment on Immigrants and Their Descendants," *Science*, December 11, 1936, pp. 522ff. A distinguished anthropologist presents evidence which makes clear the unscientific basis of alleged hereditary limitations of particular races. Boas concludes, "The organism is so plastic that in its physiological, mental and social behavior it follows the pattern of culture with which he becomes identified."

CHAPTER VIII

Toward an Understanding of Intelligence

The advocates of a democracy shared by more participants are challenged frequently concerning the factor of human intelligence. Two questions may represent the diverse aspects of criticism. Does the ordinary citizen have *sufficient* intelligence to be trusted with important issues such as the improvement of public schools, the reorganization of a complex economic system, the international relations of the political state, and serious social problems like divorce and crime? Do not the processes of democracy with their emphasis upon popular control and widened sharing of interests *reduce* the effective intelligence of a community and a nation to the mediocrity of the average man and thereby retard progress? No one can answer such challenging questions unless he has a clear view of the nature of intelligence and of the relations between intelligence and democracy. Although the subject is simplified by the elimination of confusion concerning hereditary factors in human nature, which frees intelligence from negative restrictions,¹ the parent and teacher need to go further into a positive, constructive understanding of intelligence.

In the remote past, intelligence was regarded as a special gift of generous gods to men, or at least to the upper classes

of men. According to this idea, the divine spark of intelligence could be trusted to guide humanity continuously in the path of social progress. Later the suspicion grew that man's endowment is really very meager. Both these ideas involve the assumption that the intelligence of a child is a peculiar mental attribute—quite distinct from his growing body—and is presumably strictly limited in amount.² In recent times the influence of the evolutionary theory has forced psychologists to abandon this old notion, which made intelligence an attribute of an abstract, nonphysiological mind, in favor of an identification of intelligence with the functioning of the brain and nervous system. This change in view failed, however, to enlarge in any significant degree the possibilities assumed for intellectual growth. Since intelligence came to be regarded as proportional to the growth of the body and its nervous system, the increase of intelligence was assumed to stop when neural and muscular development had reached their limits at the close of the adolescent period. The modern measurement movement intensified this pessimism concerning the limitations of human capacity by spreading abroad the fact that intelligence, as measured in terms of mental age, rarely increases after the youth has reached his middle teens. The results of such measurement led some people to believe that most adult citizens have only the intelligence of fifteen-year-olds. Furthermore, the scientific fact of extremely slow biological change in the human race was taken as implying that the intelligence of the modern man could not rise much above that of his ancestors, known to have similar skulls, who lived twenty-five thousand years earlier.³ Behavioristic psychology also seemed to discount the probability of progress,

for it reduced learning to mere conditioning as though each generation were compelled to follow the customs established by the circumstances which surrounded earlier generations. Instead of relating habitual action to intelligence, the behaviorists forced students of education to abandon any adequate conception of intelligence by permitting only a choice between a mystical mind on the one hand and automatic, blind, conditioned habits on the other.⁴ Again, the psychoanalysts' emphasis upon emotional drives has increased the confusion by insisting that emotion rather than intelligence always dominates in human behavior. All these ways of discounting intelligence having thrown doubt upon the possibilities of progress, the proponents of democracy have little ground for their faith in common humanity unless they can achieve a clearer view of the origin, nature, and prospects of intelligence.

Significance of Language as an Intellectual Instrument

The chief distinction that places man far above his nearest lower-animal relatives is his use of language. It is true that besides language man has other distinguishing qualities which have aided him in achieving his high estate. Evolution from lower forms has given man a relatively large brain, exceptionally supple hands with their unique, thumb-to-finger apposition, an erect posture freeing these hands for many uses, and a wide variety of vocalizations as well as other differences. While all these physiological assets contribute to man's superiority, the use of spoken and written language marks the tremendous gap between the average man and the most intelligent chimpanzee. Animals may be said to have a language of a limited sort, but careful observation will demonstrate that even the bark of an intelligent dog is

a natural emotional outburst rather than a vocal symbol used intentionally to convey meaning to others.⁵ Although in children and adults much of language expression is still on the low, emotional-reaction level, human beings do use words with greater or less success for the purpose of conveying their ideas to other persons. In spite of the difficulty we may encounter in drawing a clear line between the conditions that result in a dog's bark and his master's interpretation of the bark, we all recognize that men and not dogs have created thousands upon thousands of verbal symbols, which constantly increase the opportunity for clear communication with their fellows. The rise of intelligence is intimately associated with a man's ability to learn from other men through the instrumentality of language, and to formulate ideas of his own to share with others.

The Child's Intelligence and His Use of Language

A study of the emergence of intelligent action in the life of any normal child will reveal to the diligent observer intimate relations with language. Although intelligent activity depends in large measure upon bodily growth, especially the growth of the nervous system, attempts to measure the relative intelligence of infants by means of early neuromuscular co-ordination or motor development have not proved entirely successful. Since the average child does not pick up any wide use of words from his family until about eighteen months of age, motor tests have been employed necessarily during infancy. The carrying of the hand or of an object to the mouth is one of the tests for the child who is three months old; the turning of the head toward the source of a sound is used at six months. While such tests

may in many instances identify defective children, they do not give reliable predictions of the intelligence which comes with language use.⁶ After eighteen months most of the measures of sensitivity and muscular control are superseded in intelligence tests by language items and adaptive behavior problems. The acquisition of speech itself is a crucial criterion of general intelligence. The idiot is often defined as one who never learns to talk. Feeble-minded children begin to talk much later than the normal age. Gifted children usually talk several months earlier than the average child. From the time that comprehensible speech begins, the most reliable methods of determining the quality of a child's intelligence involve measuring his ability to follow spoken directions, the size of his vocabulary, and the preciseness and complexness of his own speech organization.⁷

The close relation between intelligent, thoughtful action and language is no accidental correlation. Words or other symbols are necessary for planning any action that goes much further than handling objects lying before the individual's eyes. A dog may deal so cleverly with the obstacles which lie between him and his objective that we may call him intelligent. We may grant still more intelligence to the three-year-old chimpanzee who uses the sticks and boxes at hand more cleverly in many instances than the speechless infant, or even than a three-year-old, but more slowly maturing, child with a vocabulary of a thousand words.⁸ But eventually the normal child learns to use words so effectively that his planned activities attain a much higher level of organization than the most intelligent chimpanzee can reach. Words help the child to understand the complex world in which he grows. They not only aid him in using effectively the ma-

terials at hand, but they enable him to go beyond his immediate environment in devising ways of remaking his own miniature world. Language carries the baby out of an animal-like infancy into the beginnings of human development characterized by constructive action—intelligent behavior.

Language and the Emergence of the Human Race

A growing appreciation of the significance of language in the development of the young child may lead the student into an imaginative return to the infancy of the human race—to the beginnings of intentional, communicative language. Although the emergence of man from among the lower animals is clouded by the meagerness of the evidence, some cautious speculation concerning the process may contribute to an understanding of intelligence. Anthropologists seem to agree that after biological evolution had provided the precursor of man with physiological equipment approximately equal to that of man today, such as a large and complex brain, a supple hand, an erect posture, and adaptive vocal organs, a long period of time intervened before even a simple spoken language came into use. During these tens or probably hundreds of thousands of years men learned to make a few simple tools—chipped stones for cutting, rounded stones for pounding, pointed spears for killing game. Perhaps they fashioned animal skins into protective coverings, made pots of clay or baskets of reeds, and began to use fires to warm themselves. While this extensive tool-making, which also distinguishes man from the lower animals, was progressing with infinite slowness, language—the tool of tools—had its feeble beginnings. Possibly out of the natural rhythmic chant came accidentally designations for persons, events, and

objects. Accidentally, we must say, for no one who had not experienced the usefulness of language could even imagine it, not to say anticipate its value and invent it. In some such way language and human intelligence began.⁹

The significant fact is that human intelligence is not a mysterious essence brought down from the remote skies in limited amounts. Intelligence is the outcome of a practical language tool fashioned on the ground by primitive creatures who had learned to make useful implements out of the rocks, clay, and sticks beneath their feet. Mind or intelligence is nothing more than a sensitive, adjustive body equipped by fortunate social accident in the dim and distant past with a flexible language tool peculiarly adapted for thinking and planning, and for communicating these individual thoughts and plans so that they become the common possession of all the members of the community. If the making of mind consists in the making of language, then men can use language in stretching their minds or increasing their intelligence beyond any discernible limits. Once man has come into the possession of language he has in his own grasp a tool of tremendously creative possibilities.¹⁰

Creative Intelligence and the Language Tool

From this standpoint human intelligence may be defined as an adjustive method of social behavior made possible through an ever-changing language instrument. Instead of wasting energy by attacking an obstacle directly, a language-using man may stop to think and may plan new ways of attaining his objective. He may call to his aid, by means of their signs, materials and conditions that lie beyond his physiological vision. For now he has attained a *psycho-*

logical vision! Creative thinking emerges in each new generation out of the happy union of a vigorous, adjustive, tool-using animal organism with a set of convenient verbal symbols that act as representatives of objects, actions, and relations. Thus, humble man comes even in his childhood to act *as if* he had a god-like mind.

Since language is a *creative* tool, the erroneously assumed limitations of intelligence disappear. With the assistance of words and their outcomes in planned activity, men have built scientific systems by which many physical and biological events can be predicted. Using these organized data supplemented by new combinations of words, which are ideas, men continue to invent new machines, such as the radio and the airplane, and new forms of social organization, such as democracy. This inventiveness promises to continue at an ever-increasing rate. No one can predict when or where creative intelligence will end. The possibilities of individual creativeness when combined with the probability that these new ideas will be communicated clearly to other individuals not only of this generation through speech, but more widely to this generation and future generations through printed pages, provide a broad, constructive force for social progress. The limits of intellectual energy need not concern us. Because human intelligence is a function of man-made language, it has a creative character which is not subject to the slow and uncertain movement of biological evolution. Nor is intelligence restricted to any definite limits such as were implied in the outmoded view of mind as a carefully measured amount of some substance derived from a mysterious source. Whether the child or the race is considered, the growth of the language tool permits a continuing increase in effective intelligence.

Does Democracy Maintain the Normal Distribution?

Everyone recognizes, of course, that, even when there is a common background of culture and language, intelligence still varies among individuals of a community or a generation, because each individual is born with a different brain and body. In every generation a few will be born without adequate physiological equipment to grasp effectively the language tool. On the other hand, biologists assure us that each generation will have a majority with normal equipment, a few with the bodies and brains of genius, as well as a few doomed by their genes to be dullards. The maintenance of the present wide range of physiological equipment through succeeding generations does not require even that the percentage of children born to intellectually superior parents be as high as that for the general population. To quote an authority from the field of biological research:

In any fairly large sample of human population, whatever its average status, whatever the uniformity resulting from the way it is selected, there is reason to expect that in the next generation marked inequalities will appear, physical, temperamental, intellectual, moral. There will be a few that are much superior to the rest; a few markedly inferior; and in the great intermediate mass a strong differentiation in tastes and aptitudes. The human species, reproducing biparentally, is constituted like the bodies of many organisms that have a high power of regeneration. From any limited portion, even if relatively uniform, there can be reproduced all the different parts, adapted to different functions; can be reproduced the entire social organism, with all its differentiations. The "classes" do not perpetuate themselves as such. From the higher many lower are produced; from the lower, many higher. From the great mediocre group are produced more of the higher than the higher group itself produces; and more of the lower than the lower group itself produces. . . .

If one means by a democracy such a constitution of society that any part of the mass can in time supply individuals fitted for all its functions—in that sense the biological situation is that of a democracy.¹¹

Democracy and Creative Intelligence

With this sound scientific assurance of the stability of human physiological equipment, we can turn with renewed confidence to the fact that the effective intelligence of the average man, and likewise of the genius, depends largely upon the advancement in language equipment of the generation into which he happens to be born. For example, it is said that if a mathematical genius of the twentieth century, like Einstein, had grown up among the early Romans, a lack of tools and methods of mathematics probably would have limited his mathematical comprehension to less than that of the average engineering student of today. The accumulation of language and of tools made possible by language has been a long, gradual process, but unless war or other calamity destroys the race, the continued increase of the tools of intelligence seems inevitable. All the more do teachers and parents need to have a fairly accurate estimate of the young child's bodily equipment and present intellectual ability, such as an intelligence test gives, so that they may choose more wisely the activities appropriate for developing the particular child's intelligence creatively. In this educative process language is used as the chief means of sharing with the growing child the cultural heritage attained by the adult group. On the other hand, no teacher should ever forget that education aims to aid each child in *creating* according to his increasing ability and then in sharing ideas of his own with the group. Democracy, when interpreted

as a constant widening of the area of common interests shared, insures the continuance of this mutual exchange of ideas throughout life for the common enrichment of the minds of all individuals. Such are the intimate relations between creative intelligence, educational programs, and the democratic way of life.

The Danger of Verbalism

While the contribution of language to social progress hardly can be overemphasized, every teacher and parent should be conscious of the dangers which lurk in language. Many useful tools are dangerous—knives for young children, automobiles for adults. Too often in schools and homes language is used in ways which retard rather than promote the intellectual development of children. A constructive approach to the problem involved in raising the quality of intelligence in children, teachers, and parents may be made through a consideration of certain difficulties that arise out of the nature of language.

Teachers are ever in danger of assuming that words constitute the end of education, whereas words should be used as means to action. The term "re-citation" betrays the traditional school's acceptance of the repetition of words and sentences as the final act of learning. The recent emphasis upon "activities" in elementary schools betokens a change whereby books are being used as aids to doing something intelligently. On all levels of education from the kindergarten to the college the pupil's aptness in memorizing words and the simplicity for teachers of testing and grading by short, word answers leads commonly to a pupil-teacher alliance against the educative possibilities of language. As students approach maturity they should learn how to resist

this danger in their own class activities even though their resistance goes to the point of demanding a new curriculum or new methods of instruction and examination. The origin of language indicates that words themselves will produce no more intelligence than sticks and stones until they are put to use in constructive social action.

Language Correction: an Emotional Obstruction

A closely related difficulty peculiar to the school is that the duty of teaching language, as language, is taken so narrowly that educative thought and action are obstructed. The large amount of time devoted in many schools to spelling, grammar, punctuation, and pronunciation needs to be evaluated carefully in terms of the intellectual and social results. Even when these language arts are incorporated within significant educative activities, corrective interruptions by teachers or pupils may cause enough emotional disturbance to disrupt a pupil's constructive participation in group activity. If the standard for spelling, grammar, punctuation, and pronunciation were suddenly lowered to a mere requirement that the meaning be communicated clearly, what an emotional relief would come to many a school youngster! "Ain't" and "definately" would become accepted parts of a flexible American language. While the writer does not advocate that the school abandon the language standards established by wide usage, attention is called to the delicate problem of adjusting corrective language instruction to the vital activities of pupils so that it supports a continuing education rather than becomes an obstacle to individual and social progress.

Vocabulary Drill Divorced from Intelligent Activity

Another artificial method of attempting to relate language and intelligence consists in stressing the enlargement of vocabulary as a more or less separate aspect of an individual's education. The underlying assumption is that since a vocabulary test reveals the mental age or intelligence quotient of a child or adult quite accurately, a direct attack upon new words will produce a corresponding gain in intelligence. This device employing much memorization by sheer repetition is advocated often for high school and even college students. Although some students formulate their own definitions, too many under the pressure of a wage-scale marking system "trade" or "borrow" definitions. In considering the value of such a method we may look back to the early childhood period between the age of two and five when normal children acquire about fifty new words each month. This rapid vocabulary increase does not require special drill, but arises incidentally out of the varied contacts of the child who continually encounters new objects and events as he trots about his home or runs away to the neighbors.¹² Although the youth in his teens may proceed with a clearer intention than that of a four-year-old in enlarging his vocabulary, this enlargement should come from pursuing the needs that he encounters in his vital school and community activities rather than from vaguely hoping that the conning of vocabulary cards will automatically increase one's intelligence quotient. His genuine interests in reading and discussing history or science should provide the end to which an enlarged reading and speaking vocabulary is an essential means. Intelligence grows as new words representing new ideas are used for achieving enlarged purposes.

Are Words Emotional Stimuli or Intellectual Symbols?

A more subtle danger arises out of the emotional prejudices that attach themselves to words largely through a conditioning process of which the individual is not aware. The word "home," for example, may carry a feeling of affection not connected with the word "house." "British" sounds better to an Englishman than to most Americans. Such emotional tones may seem harmless enough or even beneficial, but they often interfere with intelligent thought and action. It may even be necessary with a certain individual to avoid the use of terms like "communism" and "dictatorship" because the sound of these words effectively closes his mind to any clear consideration of the actual characteristics of these forms of political organization. On the other hand, the term "democracy" may be accepted affectionately without sufficient thought concerning the particular interpretation implied by its use. Every person needs to be reconditioned in his language experiences, so that the words he uses may be stripped of their undue emotional attachments and become more nearly neutral intellectual symbols. A consciousness of the prejudices which lie within words constitutes an essential step toward freer intelligence.

Terminology Often Blocks Intelligent Inquiry

Another subtle danger may be illustrated by the confusion concerning "mind" and "intellect." The use of a noun like *mind* early leads children into the notion that some thing or substance exists in the body, or the head, which is the mind. Until one escapes from this childish notion that an "intellect" is the source of intelligence, he cannot attack the

problems of education intelligently. Many of the nouns used in common speech, such as "gravity," do not stand for particular things or special forces, but like "intellect" represent complex ways of behavior. Most high school graduates use the term "gravity" glibly, but cannot make the least contribution toward a scientific explanation of this "force." The mere names, which block further consideration, must be replaced by an inquiry into how gravity is related to the mass of earth and how intelligence grows through language use in adaptative action. While the employment of abstract terms is a necessary means to the enlarged concepts of a complex civilization, such abstract terms becloud discussions of science, education, and social progress unless the reader penetrates deeply into their meanings. In this instance the emotional prejudices for or against democracy must be reduced, and intelligence rescued from a thing called the mind, in order to approach a clear understanding of the relations between democracy and intelligence.

Democracy and Language Dangers

The emphasis placed in the present discussion upon the close relation between the growth of the language instrument of a people through hundreds of years and the rise in the quality of their culture needs corrective consideration. Does the size of the dictionary, the number of words in a language, correspond directly to the degree of democracy found among a people? Will a fuller democracy come automatically out of language elaboration either in a nation or in an individual? By no means! The individual who uses a language in the spirit of democracy must have a sincere desire to communicate in all honesty and candor with his neighbor. Integrity of the speakers and plainness of

speech are much more essential than elaborate diction in promoting co-operative action among the members of a community. A clever speaker who uses a rich language to equivocate may do as much to retard democracy as one who with simple words is definitely untruthful. Even the wide sweep of the radio broadcast may not prevent a clever politician from being all things to all men. In other words, the instrument of language may be used either to destroy or to build democracy. Only as the members of a community and the leaders of a nation learn to speak and act honestly with each other will democracy progress. While the language arts form the essential means of education for every child, character building is the fundamental end of a democracy. If a democracy is to advance, the people must construct, clarify, and use language with the peculiar emphasis of democracy upon a widened sharing of interests ever in view.

As has been indicated in a previous discussion,¹³ the use of language, especially in a democracy of free speech, is a constant source of conflict and confusion for the individual. From early childhood to old age he receives diverse ideas from different persons. Even within his own home, the child may hear different views expressed by his father or mother, his sister or brother. When he meets playmates they bring to him and he to them the various ideals of different family patterns. Later he encounters in the school and outside the attack of organized interests such as business concerns, patriotic groups, and political parties, which compete with each other for his attention and support. Out of these conflicts intelligence may arise rather than confusion if the individual can expose the conflicts clearly and resolve them with comprehension. While much of the conflict experienced may

be merely a healthy struggle, or even a delightful diversion, it is essential that confusion of action and retardation of social progress be avoided. The school must share responsibility with the home for helping the child to meet squarely any conflict that is likely to interfere with his integrated development.¹⁴

Language does look like a dangerous tool. When one adds to the conflicts of ideas and the equivocal possibilities of speech the subtle dangers of attaching emotional prejudice to words and of allowing abstract words falsely to represent non-existent substances, as well as the teacher's inclinations toward mere wordy recitations, meticulous attention to grammatical standards, and artificial expansion of vocabularies, language seems more of a curse than a fortunate social accident. Hope still exists, however, that the creative possibilities evinced even in the discovery and description of these difficulties may carry through to educative procedures that overcome the obstacles. At any rate the dangers of language cannot be avoided. The fundamental fact that language becomes a creative instrument anew as each child acquires speech from his elders substantially supports a profound faith in human intelligence.

Individual Intelligence and Social Democracy

In conclusion, we turn back to the original question: Does the ordinary citizen have *sufficient* intelligence to be trusted with important issues? The form of the question assumes that intelligence occurs in definitely limited amounts. Citizens are assumed to "have" only so much intelligence. Actually, intelligence concerning economic and educational issues may grow as new facts are found and promulgated. The scientific attitude favors explaining all

facts to all who can understand them. In a democracy we are concerned to encourage the scientific attitude and to raise the quality of intelligence through free educational opportunities. But intelligence must go beyond even a full knowledge of scientific facts. Intelligence broadly interpreted should involve an inclination and ability to use the discoveries of science for high social purposes—for the promotion of common interests. A human being is not intelligent unless he vitalizes his specialized knowledge by relating his activities consciously to the problems and hopes of his fellow men. From this standpoint, the intelligence of leaders as well as of ordinary citizens must continue to grow indefinitely in a true democracy. To put the proposition the other way around, democracy is a form of social organization that grows and changes because it sets as its criterion of intelligence a social sensitiveness that promotes the continued widening of common purposes. The quality of social democracy and the quality of individual intelligence may advance hand in hand.

The other question—whether widened sharing may not *reduce* the effective intelligence of a community to mediocrity—may be answered by saying again that the free flow of ideas or widespread, sincere communication among all persons is essential for optimum intellectual growth. As human intelligence arose out of communication, so it will continue its growth through fuller communication. Democracy implies that every individual should have an opportunity to voice his view even though he be a minority of one. Majority rule may be necessary in establishing certain forms of action, but the community or national program should be designed in the light of all available ideas, and for the purpose of welcoming new ideas. Any method involving the

establishment of class lines or national boundaries that excludes certain groups or individuals from participation in discussion will be likely to reduce effective intelligence as well as neglect the welfare of those individuals and groups. Unless we have both the language instruments and the emotional inclinations for reaching common understandings, many will suffer much and all will suffer somewhat. The detailed methods of fostering wide and honest communication between differing individuals, diverse industrial groups, and more or less isolated nations is a problem of social and political education. In a complex society the process of adjusting leadership to followership and to fellowship requires wise experimentation in effective ways of developing judgment in the choice of leaders. Trust must be placed in leaders by their fellows, while leaders in a democracy must be sensitive and responsive to the needs of all members of the community. For a fuller understanding of the deeper educational problems involved, the citizen must turn to the study of history, economics, psychology, sociology, and government. We can simply conclude that the free sharing of ideas and ideals is the fundamental basis of cultural growth for both the individual and the whole of society, and constitutes thereby a sound reason for choosing a democratic way of life.¹⁵

Although man has not changed appreciably in his physiological equipment during thousands of years, the intellectual possibilities of each generation increase as books and instruments pile up and language becomes a more acute instrument for thinking and communicating. Parents and teachers share a responsibility to the child and to society at large for providing conditions under which language will not bind the child to the conflicts and confusions of the

past but become a means for rapid social growth and abundant living. The "freeing of intelligence" is a constructive process involving experiences in which language becomes a tool in activities that may rise to ever higher levels, thus meriting the human adjectives—scientific, artistic, friendly.

NOTES

1. See Chapter VII.
2. Bode, Boyd H., *Conflicting Psychologies of Learning*, Boston, D. C. Heath and Company, 1929, Chaps. I and II. These chapters on "The Distinction of Mind and Body" and "Mind as a Substance or Entity" make clear the various characteristics which have been imputed to the mysterious mind. Contrary to the suggestion that such a gift would be "strictly limited in amount," the mind was often regarded as having unlimited powers.
3. Ogburn, W. F., *Social Change*, New York, B. W. Huebsch, 1922, p. 141. This section on "The Correlation of Cultural and Biological Change," with the preceding on "Biological Change in Man," throws light on this problem from the sociological angle. For the biological angle see Jennings, H. S., *The Biological Basis of Human Nature* (New York, W. W. Norton and Company, 1930), Chap. XV, "Environment and the Future of the Race. Inheritance of Acquired Characteristics."
4. See Chapter V.
5. Dewey, John, *How We Think*, new ed., Boston, D. C. Heath and Company, 1933, p. 231. The spontaneous and natural animal cries are excluded in Dewey's definition of language: "Gestures, pictures, monuments, visual images, finger movements—anything deliberately and artificially employed as a sign, is *logically* language." Chapter XVI, "Language and the Training of Thought," from which the quotation is taken, constitutes an introduction to Dewey's view of the relations between language use and intelligence. The indexes of *Democracy and Education* and *Human Nature and Conduct* will lead the student to other significant statements about language in life and education. A profound consideration of the problem occurs in Dewey's *Experience and Nature* (Open Court Publishing Company, 1925), Chap. V, "Nature, Communication and Meaning."
6. Shirley, Mary M., "Locomotor and Visual-Manual Functions

in the First Two Years," *Handbook of Child Psychology*, Carl Murchison, ed., 2nd ed. rev., Worcester, Mass., Clark University Press, 1933, p. 264. Although motor tests may not have great predictive value, the student recognizes that the infant's co-ordinated movement *toward an objective* by pivoting, creeping, or reaching is an *intelligent* act and promotes the growth of intelligence *before* language use comes, and that motor activities later participate constructively with language use.

7. Goodenough, Florence L., "The Measurement of Mental Growth," *ibid.*, Chap. VII. See also McCarthy, Dorothea, *op. cit.* in Note 3 to Chapter I. In my Chapter IV, the section entitled, "Early Language Activity Becomes Organized," p. 85, bears on this problem.

8. Koehler, W., *The Mentality of Apes*, 2nd ed., New York, Harcourt, Brace and Company, 1927. The intelligence of the higher apes upon the level of animal insight is thoroughly demonstrated. An understanding of intelligence of the insight type contributes toward a fuller understanding of the greater possibilities that come when in human beings these intelligent insights are supplemented by the use of language. In his *Gestalt Psychology* (New York, Liveright Publishing Corporation, 1929) Koehler devotes Chapter X to "Insight." See also for a comparison of animal and child intelligence when given similar opportunities: Kellogg, W. N. and L. A., *The Ape and the Child* (New York, McGraw-Hill Book Company, 1933). For a still broader consideration from the standpoint of comparative psychology see: Katz, David, *Animals and Men* (New York, Longmans, Green and Company, 1937), especially Chapter VII, "Man and Animal, A Psychological Comparison."

9. Jespersen, Otto, *Language*, New York, Henry Holt and Company, 1924. The student who is interested primarily in theories of intelligence may read Chapters I to IV on the "History of Linguistic Science," and Chapter XXI, "The Origin of Speech." See also Wallas, Graham, *Our Social Heritage* (New Haven, Conn., Yale University Press, 1921), pp. 16f.

10. Ogden, C. K., *The Meaning of Psychology*, New York, Harper and Brothers, 1926, Chap. IX. This chapter on "Man's Linguistic Heritage" moves rapidly through the early stages of communication in animals and children to the virtues and drawbacks of language. This British psychologist is also co-author of a profound study in this field: Ogden, C. K., and Richards, I. A., *The Meaning of Meaning* (New York, Harcourt, Brace and Company, 1923). See also Robin-

son, James Harvey, *The Mind in the Making* (New York, Harper and Brothers), 1921.

11. Jennings, *op. cit.*, pp. 220f. In this chapter on "Biological Fallacies and Human Affairs" fourteen common fallacies are exposed, the last being, "The fallacy that biology requires an aristocratic constitution of society."

12. See in Chapter IV the section entitled, "School Learning: Incidental or Intentional?" p. 87.

13. See Chapter I.

14. Healy, William, and Bronner, Augusta F., *New Light on Delinquency and Its Treatment*, Yale University Press, 1936, Chap. XIV. In concluding their comparative study of each of 133 delinquent children with a brother or sister who was not delinquent, the authors find the chief cause of delinquency to be emotion-provoking frustrations within the family. Although the difficulty is usually emotional in character, the preferred remedy consists in an intellectual approach to the situation (p. 217): "As a logical outgrowth of our study which shows that parent-child relationships play such a part in the production of delinquent proclivities we are inclined to believe that the single direct attack of greatest value may be through widespread parental education—to be sure not an easy task."

15. Mueller, A. D., *Principles and Methods in Adult Education*, New York, Prentice-Hall, Inc., 1937, Chap. I. This chapter on "Adult Education and the Democratic Ideal" presents the situation in the United States that necessitates an expansion of adult education as a means of achieving democracy. Attention is called also to Chapter V, "The Nature and Development of Individual Thinking," and to Chapter XIV, "Teaching Adults of Limited Educational Background."

CHAPTER IX

The Relations of Intelligence and Habit

Intelligence and habit seem to most persons as different as mind and body. The sharpness of this contrast may be reduced, however, by studies in psychology and especially by the observation of growing children. Studies and observations that emphasize adjustiveness in habits and the participation of ideas and ideals in the formation of habits reveal a degree of intelligence entering into the broader, more flexible habits.¹ Even the student who approaches the problem from the opposite direction through tracing the origin and development of intelligence finds bodily habits incorporated in the growth of mind. When he sees speechless infants achieving motor habits of grasping objects and creeping toward objectives, he realizes that these purposeful skills are forerunners of higher forms of intelligence. His anthropological studies also lead him to the belief that the precursor of man attained skillful spear-throwing and other tool-using habits long before he began to speak and think with language symbols.² Yet these evident relations between habit and intelligence scarcely are sufficient to bridge firmly the wide gap cut by centuries of speech and thought between the habits and skills of our animal bodies and the powers of the human mind, which are so intimately associated with the use of language. Furthermore, as will be

seen shortly, psychologists too often have increased the difficulty by drawing sharp technical distinctions between habit and intelligence.

The practical effects of the separation in theory of these two vital aspects of human action and of child education are serious. Parents and teachers are inclined to keep habit formation separated from intellectual development in planning daily programs for children. Whenever these two aspects of education are set in contrast, one or the other is likely to be overemphasized. During most of the nineteenth century the psychology of mental discipline assuming a separate reasoning faculty dominated the thinking of schoolmen and gave intelligence the upper hand.³ Now the pendulum has swung in the opposite direction. Methods center in habit formation, and curricula are built in terms of habits. The present problem is to find ways of strengthening the whole process of education by bringing habit and intelligence into mutual support.

The Trend Toward Overemphasis on Habit

The current trend favoring habit began a generation ago when psychologists turned away from the introspection of mental faculties and devoted their energies in acceptable behavioristic fashion to the experimental examination of physiological changes during learning—chiefly to the study of bodily habits. William James already had started a practical turn in teachers' attitudes toward habits by substituting for the popular restriction of the term to *bad* habits the view that "Our virtues are habits as much as our vices."⁴ Thorndike has followed James in stressing the inculcation of *useful* habits, but has gone a step further toward overemphasis by declaring, "The *one thing* that [schools and other educa-

tional forces] can do best is to establish those particular connections with ideas which we call knowledge and those particular connections with acts which we call habits.”⁵ Although knowledge is mentioned separately here, Thorndike has said elsewhere that habit formation is the “one thing” under which the acquisition of all knowledge is included. Practical books for teachers commonly make habit the central goal. A psychology of elementary school subjects claims to deal “with the formation of habits that give skill in their acquirement and all the factors that influence those habits.”⁶ A very helpful writer discussing the guidance of children into efficient methods of study says: “Every teacher knows nowadays that the business of education is the business of forming habits.”⁷ Such statements give the impression that habits, as specialized parts of the organized life, are more important than the unity of organization, which is represented by the term intelligence.

Evasive Answers by Psychologists

The contrast which is implied between habits and intelligence raises a problem so difficult that the instructor in educational psychology is tempted to avoid the issue when a student asks him to explain the relation of habit to intelligence. One way of side-stepping, which might appeal to a behaviorist, involves the substitution of “intelligence” for “personality” as in Watson’s statement, “Our personality (intelligence) is but the outgrowth of the habits we form.”⁸ In this answer intelligence disappears as though it had been absorbed by habits. Another evasion faces in the opposite direction toward introspective psychology as it quotes the old analogy, “Habits are the tools of intelligence.” Here intelligence is granted a verbal dominance. A third device

draws a sharp line between the two kinds of activity by presenting intelligence as an analytic process in contrast with habits, which are labeled "unanalytic."⁹ This last treatment separates habits from intelligence without indicating any method of comprehending their relations. These three replies are typical of the way in which educational psychology fails to face the fundamental issue of resolving the conflict exemplified in these two terms. Meanwhile, antiquated distinctions between mind and body, which still run strongly in popular thought and common speech, bind students to the notion that intelligence is mental while habits are physical. A clear view of the educative process cannot be attained until misleading analogies have been discarded, overemphasis upon habit has been eliminated, and sharp distinctions that maintain a fallacious dualism have been seriously modified. The problem of habit versus intelligence calls for restatement, and for a more adequate answer derived from the study of concrete behavior.

The Lopsided Analogy between Tools and Habits

A brief consideration of the tool analogy will show its limitations. While a teacher concentrates upon the establishment of habitual reactions in his pupils, he may salve his conscience by reiterating, "Habits are the tools of intelligence." But is it safe to assume that intelligence will keep the upper hand or have any hand in the process under this treatment? Are habits really like lifeless tools in the hands of a vigorous workman—intelligence? On the contrary, our habits are alive, active, dynamic; they go into action without waiting for the command of an overseeing intelligence. Even when habits have been started through an intelligent suggestion, they often run far beyond the restric-

tions which intelligence might well impose. This dynamic characteristic of habits has been stressed by Dewey.¹⁰ As he points out, readiness in habits implies "intense craving"—a constant anxiety to jump into action. Habits are not like tools lying on a bench, for they are "energetic and dominating ways of acting." Even though one insists on conceiving of intelligence as a distinct process, he cannot fail to see that intelligence must struggle strenuously with dynamic habits if it is to maintain its supremacy. The tool analogy is misleading for it obscures the fact that intelligence fails so often in the control of habits. An analogy that does not clarify the student's view of a particular relation is useless. This comparison is so vague and lopsided that it adds to the confusion, for the analogy breaks down whenever the student attempts to compare any specific habit with a tool. Perhaps the error lies in attempting to set forth a kind of contrast between habits and intelligence that does not exist. If intelligence is dynamic, so is every habit.

Is the "Analytical" Distinction Valid?

Even when this dynamic, active characteristic of habits is recognized, a distinction based upon the assumption that there is a difference in the *kind* of activity is drawn by some psychologists between intelligence and habit. For example, in a section entitled, *Intelligence, Analytical; Habit, Unanalytical*, a distinguished educator states that habits "are lacking in analysis and, for this reason, stand in sharp contrast with reasoning processes. Habits are often so compactly organized that the individual who possesses them can give absolutely no verbal description of what he does when he performs habitual acts."¹¹ An illustration follows which depicts the skillful sawyer who "makes his movements with-

out stopping to analyze the experience; yet he is instantly responsive to the sensations which come from his saw." Thus, an analytic quality, which is denied to habit, is conferred upon intelligence.

No such choice, however, need be made, because the assumed contrast between habitual and intelligent acts is not supported by valid evidence. In establishing this view we must show, first, that the acquisition and maintenance of habitual skill involves analysis; second, that the kind of analysis found in intelligent action is not distinctly different from that which can be discovered in skills; and, finally, that intelligent conceptions are also "compactly organized" to a degree that defies complete verbal description. The aim of our criticism is to bring habitual and intelligent action within one clarifying view of the learning process. The practical outcome should be a harmonious teaching procedure rather than a conflict of methods.

Let us begin with a definition of analysis by which we may judge whether or not certain processes are analytical. One dictionary states that analysis is "the examination of the component parts in their relation to the whole." This definition may be employed tentatively until its use in our discussion reveals more clearly through a consideration of human activities the nature of analysis.

Error Analysis Occurs in Acquiring Habitual Skills

Does not analysis occur while the sawyer is acquiring his skill? When a novice tries to use a saw, suppose in making a straight cut across a board following a line, he has an aim which represents in prospect the whole act from the selection of a suitable saw to the last stroke that cuts off the board. Since the novice lacks intimate acquaintance with

many phases involved in the skill, he is quite likely to encounter distinct difficulty as soon as he begins work. Perhaps he has trouble in getting the cut started just on the line. His attention is turned to this specific phase of the task because the result produced at first is not in accord with the general outcome desired. The rectifying of this error involves an examination of one component part of the act in relation to the whole. The learner *is analyzing* the process. As the amateur sawyer proceeds, he pays attention to one phase after another because difficulties arise, each of which necessitates divergence from the method first tried. Repeated but varied trials aid in discovering new movements which fit appropriately into the whole act. Thus, efficient co-ordination is achieved. Through analytic-synthetic reorganizations a stage in skill is attained when the whole job can be done without "stopping to analyze" its various phases. Appropriate adjustments are then made readily. But it is evident that the "compactly organized" habit has arisen out of a series of attempts which have involved many an analytic act.

The teacher of handwriting or of any other motor skill will be found aiding children in making a similar analysis of each difficulty. Unless such analysis occurs under guidance, both the child and the teacher would be considered unintelligent. It is equally true that the handwriting skill should attain a level of efficient co-ordination when it will go on rapidly and legibly without the writer's analysis of its multitudinous details.

Does the Skilled Worker Use Verbal Analysis?

Those psychologists who are inclined to set habit in contrast with intelligence may still insist that habits are rela-

tively unanalytical because "often the skilled mechanic can give absolutely no verbal description of what he does." Here analysis is identified with the use of language. This restriction of analysis to verbal activity is based upon the assumption that all analyses employing language have a distinctive quality.

The more elaborate kinds of thinking are always analytical. All the relations involved in a train of reasoning are clearly distinguished and brought to vivid consciousness. Language as a medium of thought is distinctly analytical; it makes possible the dissection of situations and their description in the most minute detail.¹²

The issue comes down to this consideration: Can a line be drawn between the kind of analysis shown in learning a skill such as sawing or handwriting, and the kind involved in pursuing a "train of reasoning" about decimals or democracy in which the language instrument is used?

In the first place, note the exaggeration in the statement that often a skilled workman can give "absolutely no verbal description of what he does when he performs habitual acts." If a mechanic uses language at all, some words (in addition to expletives) will be employed, in either overt or implicit speech, whenever an outstanding difficulty is encountered, and as attention is turned to the retrieval necessary in that particular phase. Consequently, several points of difficulty will stand out so definitely that the skilled workman can indicate to the novice some phases which require special care. Any language-using human being can give a crude verbal description of difficulties encountered in acquiring a skill, and of methods used in overcoming them. Even an eight-year-old can talk more or less intelligently about his handwriting troubles and their solution. Instead of accepting the misleading overstatement that "absolutely no verbal descrip-

tion" of hand skills can be given, it becomes clear that at least a crude analytic account is possible in typical cases.

The Limitations of Verbal Analysis in Hand Skills

Nevertheless, we must agree that the handworker can never describe his skillful act in "most minute detail." Many a knack is acquired by trying again and again, without the learner's differentiating, in words, the exact details of the movement. He *feels* his way through the act rather than *talking* his way into the co-ordination that occurs. In such cases the words and verbal thinking are sketchy and incomplete. The worker is content when he can *do* the thing, and cares not a whit about *describing* the doing. Even if he does wish to describe the method, as an aid to his apprentice, it is unlikely that he will be able to set forth more than a few of the essential conditions. He is "instantly responsive" in a direct way which brooks no artificial medium like language. The skilled worker is usually much closer to his work than words can take him. He recognizes the meaning of "sensations which come from his saw," but he does not and cannot stop to name each one. Consequently, there is no likelihood that anyone will secure a detailed description of a compact, habitual process from a handicraftsman, although he has overcome many a minor difficulty, and continually makes many fine adjustments by paying attention to this or that specific aspect in an analytic way.

Need the elementary-school child name each of the curves he uses in cursive writing, or describe in detail the physiological processes involved? Will not the child and his teacher, as well as his parents, be satisfied with a practical analysis of difficulties that results in reasonable speed and legibility?

There is a further reason why the worker cannot describe

his skillful act, even if he commands the richest vocabulary. A skill is a fluid, adjustive action, ever changing to meet the peculiarities of new situations. Even if an accurate description could follow an adjustive act through the process as it occurred, this description would be quite inadequate for the next occasion, which would differ from the preceding one. A skill is always creative in the sense that the adjustment is made *as* it occurs, and is not a form of action which has been acquired already in its integrated and adaptive fullness. This adjustability, which is characteristic of habitual skill, defies analysis. Not only is the integration of adjustive skill too smoothly "compacted" for words to measure its exact contour and ramifications, but, in addition, the flexibility of such a habit is too fluid to be caught in a net of words.

Those who attempt to teach handskills either to children or to adults may well remember the limitations of verbal analysis in this field. No instructor can give complete and detailed directions that the learner can follow exactly. Although guidance is helpful, the learner must be given sufficient freedom so that he can acquire the knack in the way appropriate for him. He must have a chance to feel his way through the process and achieve his own co-ordination. In addition, the more or less skilled individual must be free continually to readjust his action as he feels and sees the need. No analysis or synthesis of the parts analyzed can be final.

Verbal Analysis also Limited in Concept Creation

Although we have recognized the severe limitations of verbal analysis in the realm of habits, such as hand skills, we are not admitting that the use of the helpful language instrument in activities classified as intellectual enables the

learner to escape from these limitations. For, when we examine the process of acquiring an intellectual concept, we find that verbal analysis in concept formation has limitations quite similar to those noted in the learning of hand skills. As an illustration, take a student who is trying to grasp the meaning of "habit," "intelligence," or "democracy." During a prolonged consideration consisting of discussion, reading, and observation, he evolves three concepts represented by three verbal symbols, just as a period of practice with a saw or a pencil leads to the corresponding skill. It is obvious that during this thoughtful consideration specific difficulties will arise which require special attention to the whole concept in each case. In other words, concept formation involves analysis similar to that defined in connection with the acquisition of skill. Of course, in such concept formation the analysis is distinctly verbal. But does this predominance of words, an indispensable means in the process, necessarily imply that the resultant—the concept—is not as "compactly organized" as is a skillful act? Can the student dissect his conception of "habit," "intelligence," or "democracy" and describe it in most minute detail?

As far as compactness is concerned, grasping a meaning is very much like catching on to a knack in hand skill. Just as the appropriate twist is discovered in the midst of a trial stroke, so while the student is absorbed in thoughtful consideration, an idea "pops into his head." Indeed, since a whole vocabulary of verbal tools is ever ready, the student's idea may not seem very closely related to the thinking which immediately preceded its opportune emergence. This sudden, unpredictable, compact transformation in experience has been noted by numerous writers. Driesch's statement, "A meaning just comes,"¹⁸ may be placed beside

Dewey's "leap" in thinking.¹⁴ Koehler emphasizes the suddenness of insight,¹⁵ while Bode points to the arrival of a new stimulus which is adequate to the situation.¹⁶ These phrases represent different approaches to the central fact that during intelligent activity instantaneous transformations occur. Each concept grasped is characterized by a unity or "compactness" which marks the resultant off from the more or less logical steps forming a portion of the experiential background out of which it suddenly emerges.

Considering a wide range of typical cases, we find that at the close of a careful verbal analysis, which precedes the coming of a new conception, there appears in the *dénouement* something more than a mere movement to an inevitable next step. The entire proposition undergoes reformation, all the phases readjusting themselves to each other simultaneously, and thereby being changed in some degree as they become members of the new whole. The uniqueness of the emerging idea corresponds to the complete readjustment involved in a skillful stroke. As the student of democracy redefines his term, he makes a jump which defies complete analysis quite as truly as does a habit of the hand.

Concepts Not Tested Merely by Analysis

Although an analysis may be made of steps which have led to the formation of a concept, the inadequacy of such analysis is recognized in the tests employed for the validity of an inference. The sound test of inferential thinking and of concepts does *not* lie in tracing backward analytically the logical steps which have led to the conclusion. Thinking is tested by going forward to the application of the conclusion in some concrete situation. Even in the field of mechanics the inventor must demonstrate the accuracy and adequacy

of his calculations by an actual trial of his new machine. In other fields, such as biology, psychology, and practical social planning, exact verbal analysis seems even less effective in exposing for critical examination the innermost recesses of concept formation. Analysis may be an aid to thought when it leads to the discovery of a new implication, but this movement goes forward rather than backwards. It does not seek proof by the retracing of steps.

No matter how thoroughly a student has analyzed any situation, he must always remember that he has reached his conclusion by jumping to it. Consequently, the new concept must stand trial as a unique *whole* rather than be accepted or rejected on the basis of a wordy dissection.¹⁷ So, habitual and intelligent acts cannot be separated on this score, for while both involve analysis, both are also characterized by an integration which verbal analysis cannot penetrate.

Democracy and the Harmony of Habit and Intelligence

The fact that in both skill development and concept formation verbal analysis has a limited usefulness suggests that similar methods of teaching are appropriate in the two fields. The instructor in either case can only point out some of the essential features which seem likely to aid the learner in grasping the knack or the meaning. And these suggested features should vary with the time, the place, the circumstances, and the learner. After the situation has been prepared by the teacher, the learner must make the leap for himself whether it be over a high-jump bar or a concept of "gravitation." If the learner fails or lands awkwardly, the teacher may point out other aspects to be considered, and thus aid in a second trial. Teachers should always remember that each learner is creating a concept of his own with

its peculiarly individual tones and colors, just as each skilled workman may perform the "same" task in a slightly different way. In teaching we cannot rely solely on analysis of concepts into words, for we must trust the learner to perform intellectual acts of an integrative character, the pattern of which cannot be designed in advance, even by the most minute analysis in language terms. While we may agree that "language as a medium of thought is distinctly analytical," we cannot accept the notion that the use of this tool of tools makes valid a sharp distinction between learning experiences that involve the fullest use of language and those in which language appears to give little or no aid. Such a distinction between "habitual" acts and "intelligent" ones is misleading, for it engenders overconfidence in mere words. Reliance upon words as such is not an educative process.

Does this attempt to harmonize teaching methods lead us toward democracy or dictatorship? Under older interpretations of habits as fixed forms of response, habit formation was considered a binding, dictatorial process. On the other hand, intellectual activity was assumed to be free. Actually the situation in schools has been the reverse. In the case of habitual skills obviously it is necessary to give the learner much freedom; his personality is respected in a democratic way. Whereas in teaching concepts the ease of dictating words too often results in binding the intellectual development of the learner to the phrases of the textbook. Now we propose to enlarge the scope of the democratic method by giving the individual an opportunity to create his own concepts as well as to attain his own skills. We recognize, however, that all learners need guidance whether they are grasping pencils in handwriting or grasping meanings in history. The child must learn always through an intelli-

gent sharing in the experience of his comrades, young and old, a process that is democratic.

Feeling and Judgment; Thought and Action

Intellectual activities are similar to manual skills also in being modified, if not controlled, by feeling or emotion. Since an intelligent act, even when employing dry words, is still a human activity, it receives guidance, as does skill, through feeling. As the thinker leaps to grasp his conception, his feelings get their chance to push this way or that. Prejudices, desires, sympathies play their part in molding conclusions. And though reflection may safeguard thinking in some measure by requiring re-examination of the whole proposition, eventually the decision must be reached and deliberation on that particular point must cease. Final judgment that the process of analytic examination has been carried far enough to give a fitting conclusion rests upon the total feeling of the thinker, and this statement may well be compared to the fact that the learner's own feeling of the appropriateness of his act as he performs it guides him in the acquisition of any skill. One gets the *feel* of a knack as he does it.¹⁸ It is true that through much reflection and many practical trials this fundamental feeling may attain a quality which we call "good judgment." Good judgment, however, is a unity which may be felt but which cannot be completely analyzed, although the resultant is discovered and expressed by means of words. A felt integration occurs both in skill and in thought, and even though one may long for a higher degree of certainty, he is compelled to trust his own feeling at last. This fact does not imply that a feeling of assurance is the ultimate test in thinking, but rather places emphasis on the necessity of creating a scientific attitude—a feeling of

joy while dwelling on the doubtful—to replace that common human desire for certainty which leads to premature judgment.¹⁹ Since we cannot escape from the flexibility of feeling into a world of solid, logical molecules, let us do what we can to make our feelings become helpful guides in thought as well as in skill.

In the light of the preceding discussion it is scarcely necessary to point out that an intellectual concept has a degree of fluidity like that of any knack in hand skill. Although words preserve meanings, the meaning of a word is not necessarily static, any more than is the pattern of a physical habit. Like habits, concepts range from the relatively inflexible, such as "rectangle," to the dynamic, growing meanings such as "habit," "intelligence," "democracy." In so far as concepts are modified through use, they become too deeply immersed in a moving intellectual world to permit their examination "in most minute detail." Newly created concepts require the invention of new terms or the conferring of new meanings on old names, for each concept has a unique unity that cannot be described fully by a mere summation of other terms. Definitions offer only crude intimations concerning vital meanings, just as descriptions of skills only follow these activities at a respectful distance. Consequently, the modern thinker's "good judgment" must guide him in deciding *when* to move forward into trying his concepts in actual social situations of the school or the community.

Distinctions Based upon Specialization and Generalization

In the light of the dynamic and analytic characteristics of many habits and the limitations of verbal analysis even in intellectual fields, what valid distinctions remain in the con-

trasting terms "habit" and "intelligence"? Can the functioning of language in intelligent activity be disregarded?

Many ages ago the emergence of language in the midst of a society of tool-users marked an enormous step in social evolution by which the precursor of man increased his effective intelligence enough to justify calling him a human being. Out of the feeble beginnings of language came foresight, planning, deliberation, and reflective thinking. Today each child must acquire language and thereby begin to think. But this step in development should not be confused with our problem. We are concerned rather with the relations between habit and intelligence *after* the learner has passed over into the language-using stage. Language is not disregarded, for it is assumed that the tool is available and ready for instant use, whether the learner is engaged in acquiring manual habits or in delving into intellectual problems.

When applied to concrete acts, the word "habit" indicates a specialization that has arisen out of the complex of ill-defined activities with which the infant begins life. The hand that first fumbles vaguely and grasps by reflex eventually acquires *specialized* skill in holding and guiding a saw or in manipulating typewriter keys. In contrast, intelligence refers to the *generalized* guidance of activity. An action is commended as intelligent when a general sizing-up of the whole situation has occurred, whereas an act may be designated as skillful and habitual without consideration of its total effects. It must be remembered, however, that specialized habit and general intelligence grow up together. We cannot accept Watson's view that personality (intelligence) is "*but* the outgrowth" of habits, for this implies that the part precedes the whole. A habit cannot develop except

through co-ordination and integration with other activities which make up the already going concern. Moreover, some degree of co-ordination and integration is necessary from the very beginning of life. As each habit emerges, it must make its peace with the whole life, that is, enter into co-operation with the various conditions within the organism as these are related to the environment. When integration and adjustability reach a high level, we label action "intelligent." So there need be no mystery about the relation of these two aspects of life. Specialization and generalized co-ordination are complementary to each other, just as in social life the individual and the community of persons may become so related as to promote each other's growth and well-being. A pseudo-problem has been artificially concocted by overemphasizing distinctions, neglecting relations, and forgetting that differentiation and integration progress together in living organisms—even in those that use language.

Habitual and Intelligent as Emphasizing Old and New Aspects

Another distinction, which is closely connected with the preceding, emphasizes the effect of previous experience upon habitual action, whereas an act is called "intelligent" in order to stress the new, creative reorganization which is occurring because of the peculiarities of the present situation and in consideration of the probable future consequences. This contrast is also valid as long as the student does not forget that habits enter into the intelligent reorganization, thus making it possible, and that at the same time these habits are reconstructed and become more flexible. As Dewey says, "What is necessary is that habits be formed which are more intelligent."²⁰ So, when we examine a particular con-

crete act, we find not only that it is in some degree the product of past experience, and therefore "habitual," but also that modifications and adjustments have occurred which make it entirely proper to label the act "intelligent" as well. Any novel action that is marked by a generalized consideration of the present situation and the consequences which may emerge in the future will be found on examination to have roots reaching deeply into past experience and to involve specialization of some sort. In concrete acts the past, the present, and the future come into intimate relation, and likewise specialization and generalized integration occur simultaneously. The adjectives *habitual* and *intelligent* indicate merely different phases to be noted, or a predominance in emphasis by the observer, or the relative location of the act on a scale which includes many gradations from the largely habitual to the highly intelligent.

Habit in the Abstract Only Is Unanalytical

Our discussion up to this point has dealt with *concrete* acts, which for purposes of emphasis may be called either habitual or intelligent. But these terms are also applied to *abstract* characteristics. This "abstract" use becomes a source of confusion unless the student clearly recognizes the difference as he reads psychological literature. For example, Dewey says, "Habit *as such* is too definitely adapted to an environment to survey and analyze it."²¹ Is this equivalent to saying that a concrete habit cannot involve analysis? By no means. The term *habit* as used in this quotation stands for the abstract characteristic of definite adaptation. It is used in this restricted sense as a basis upon which to indicate that something more than definite adaptation must and does occur in effective living. "Impulse" must be released,

when definite adaptation fails, and finally "conscious search" or "intelligence" (in the abstract sense) must supervene. Here sharp distinctions are drawn. Each of the three terms is strictly defined and set in opposition to the other two. Such an abstract logical analysis of human action may aid the student in noting how novel suggestions and careful deliberation must occur when old forms of activity come into conflict or prove inadequate for the situation. But the student must remember that many concrete habits involve adaptability, that habits enter into the constitution of our actual impulses, and that in reality intelligent activity does not result in the abandonment of habits. *Habit as such* is unanalytical, but we must acquire *habits* which are more analytical and more intelligent. Abstract statements concerning habit should be so safeguarded by careful examination of concrete habits that no student will be misled into applying an abstract characteristic to a concrete action in such a way as to blind him to its actual flexibility and intelligence.

In conclusion, we may agree that from the standpoint of abstract characteristics it is proper to say that intelligence supervenes following the conflict of habits and the releasing of impulse. But this fact should not lead to the notion that two separable kinds of activity exist in the same organism, the one being dominant and the other subservient. When a psychologist talks as though concrete habits are inflexible, unprogressive, and unanalytic, while intelligence has contrasting characteristics, he encourages a dualistic view of behavior—a hang-over from the mind-body conflict.²² And the student of education becomes confused. It is less misleading to say that a person's lack of progressiveness lies quite as much in his general intelligence as in his specific

habits. Habits are not the tools of intelligence; nor is intelligence the outgrowth of previously established habits. The life of a changing organism in a changing world involves the continual reorganization of the specific phases as well as of the unified totality. Habits and intelligence together may contribute to a democratic life in which the wider sharing of ideas and interests continually promotes both stability and creativeness.²³

NOTES

1. See Chapter V.
2. See in Chapter VIII the section entitled, "Language and the Emergence of the Human Race," p. 170.
3. Bode, Boyd H., *Conflicting Psychologies of Learning*, Boston, D. C. Heath and Company, 1929, Chaps. III and IV. These chapters entitled, "The Learning Process from the Standpoint of the 'Mind' Theory" and "The Reaction against Formal Discipline," show that the relations are much more complex than the oversimple statement that faculty psychology "gave intelligence the upper hand" implies.
4. James, William, *Talks to Teachers*, New York, Henry Holt and Company, 1899, p. 64.
5. Thorndike, E. L., *Educational Psychology, Briefer Course*, New York, Teachers College, Columbia University, 1915, p. 401.
6. Reed, Homer B., *Psychology of Elementary School Subjects*, Boston, Ginn and Company, 1927, p. 1.
7. Stillman, Bessie, *Training Children to Study*, Boston, D. C. Heath and Company, 1928, p. 238. This practical book based upon wide experience actually brings habits and intelligence into supporting relations through the teacher's guidance of the child's methods of study.
8. Watson, J. B., *Behaviorism*, New York, W. W. Norton and Company, 1924 ed., p. 216. In the 1930 revised edition the statement is modified so that it reads (p. 274): "Personality is but the end product of our habit systems." The interpretation of habit is broadened.
9. Judd, Charles H., *Psychology of Secondary Education*, Boston, Ginn and Company, 1927, p. 301.

10. Dewey, John, *Democracy and Education*, New York, The Macmillan Company, 1916, p. 57. In *Human Nature and Conduct* (p. 24) Dewey says, "All habits are demands for certain kinds of activity; they constitute the self." Is his meaning the same as Watson's? Compare my Chapter X.

11. Judd, *op. cit.*, p. 301.

12. *Ibid.* The student should read the whole chapter to see how the author uses this "analytical" distinction as a basis for emphasizing the need of training workers "in those forms of analytical thinking that are fundamentally social in character" (p. 324).

13. Driesch, Hans, *Mind and Body*, trans. by Theodore Besterman, New York, The Dial Press, 1927. The quotation is from an unpublished lecture. The scholarly background out of which this simple statement comes will be appreciated by the student who follows the fundamental problem into Driesch's writings.

14. Dewey, John, *How We Think*, Boston, D. C. Heath and Company, 1933, rev. ed., p. 107.

15. Koehler, W., *The Mentality of Apes*, 2nd ed., New York, Harcourt, Brace and Company, 1927, p. 17. Even the animals below man intellectually escape from the slow gradual change long associated with repetition as the essential of habit formation.

16. Bode, Boyd H., "Consciousness and Psychology," *Creative Intelligence* (Dewey, Moore, and others), New York, Henry Holt and Company, 1917, p. 248. The suddenly changing stimulus contrasts sharply with the "S→R bond" concept in which the whole habit remains fixed because the arrow points in only one direction. See Note 15 of my Chapter VII, p. 162. In this collection of essays about creative intelligence Dewey calls for "A Recovery of Philosophy" for the purpose of indicating "the extent to which intelligence frees action from a mechanically instrumental character"—the old view of habit (p. 64); while Henry W. Stuart in "Phases of the Economic Interest" undercuts the older economic theories by showing that economic choices may be based upon constructive, intelligent comparison rather than on original human needs and ancient habits.

17. Dewey, *How We Think*, *sup. cit.*, rev. ed., pp. 183f. "Thinking, in short, must end as well as begin in the domain of concrete observation if it is to be complete thinking."

18. Ogden, R. M., and Freeman, F. S., *Psychology and Education*, New York, Harcourt, Brace and Company, 1932, p. 118. The reference is found in the section entitled, "The Aesthetic Nature of Perception." The discussion carries the aesthetic feeling from bodily

skills through insight of the animal type to language and intellectual experience in mathematics. The gap between habit and intelligence is bridged by a common aesthetic feeling.

19. Dewey, John, *The Quest for Certainty*, New York, Milton, Balch and Company, 1929, pp. 227f. The argument is that no separate "mind" exists outside of nature having power to decide questions with absolute certainty, but that scientific method does lead to the *relatively* secure. The "desire for the emotion of certitude" should give place to the "quest for the objects by which the obscure and unsettled may be developed into the stable and clear." See Note 2 to my Chapter XIV, p. 321.

20. Dewey, John, *Human Nature and Conduct*, New York, Henry Holt and Company, 1922, p. 128.

21. *Ibid.*, p. 179. The quotation is taken from the section entitled, "Habit and Intelligence." In this book Dewey makes a thorough study of the relations of habit, impulse, and intelligence and comes to the conclusion that morals are human and morality is social. See Note 7 to my Chapter VII, p. 161.

22. Bruce, William F., "Comment upon Breed's Criticism of Dewey," *School and Society*, June 24, 1933, pp. 812-814. An answer is suggested briefly for those who accuse Dewey of overemphasizing intelligence, creativeness, precariousness, and problematic situations but of neglecting habit, custom, natural law, and accumulated organized knowledge.

23. Bayles, Ernest E., "The Objectives of Teaching with Special Reference to the Morrison Theory," *Educational Administration and Supervision*, November 1934, pp. 561-568; "The Social Significance of Teaching with Special Reference to the Morrison Theory," *Educational Administration and Supervision*, December, 1934, pp. 650-658. In these two articles the author illustrates, by reference to the writings of H. C. Morrison, the widespread neglect of "the independent reconstruction of habit" and the consequent adoption of autocratic solutions for teaching problems.

CHAPTER X

The Meaning of Self in Education

"Self" is a treacherous word in discussions of learning and teaching. Any educator who depends upon this term in explaining his proposals concerning school methods is apt to be misunderstood and misinterpreted. For example, when Bagley pleads for "self-discipline," he is thereupon accused of restricting all people to the same ideals and of adhering to age-old educational methods; he is misinterpreted into an advocacy of something like dictatorship.¹ On the other hand, when Dewey combats an overemphasis of subject matter with the statement, "Not knowledge or information, but self-realization is the goal," he is misclassified with those extremists who believe that "the child has within himself the necessary self-direction and selective judgment to plan his own educational activity."² Thus Dewey is misinterpreted to be an advocate of anarchy—at least in the school-room. Likewise, the project method, as developed by the followers of Dewey and Kilpatrick, with its pragmatic emphasis upon "self-expression" and "self-reliance," is criticized for being merely a practical means which neglects higher ends. In the words of a distinguished British educator, "A people content with such a philosophy will . . . fail to seek that righteousness that alone exalteth a nation."³ This statement amounts to an accusation that the advocates of

the project method are materialists lacking in high ideals. Yet all the educators mentioned are striving to build a democratic social organization that will steadily raise the quality of human experience to higher planes. Evidently, the prefix *self* introduces conflict and confusion instead of the harmony and clarity needed in educational methods.

The Fixed, Unchanging Self: A Confusing Simplification

Dewey must be credited with pointing out the underlying difficulty.

Many good words get spoiled when the word *self* is prefixed to them: Words like pity, confidence, sacrifice, control, love. . . . The word *self* infects them with a fixed introversion and isolation. It implies that the act of love or trust or control is turned back upon a self which is already in full existence and in whose behalf the act operates.⁴

Take "self-expression" as an example. This hyphenated term suggests that the selves of children are definitely *good* and should be granted freedom for activity. In contrast, when methods emphasize "self-control," "self-denial," and "self-discipline," the implication is clear that the selves of children really are *bad* and need restraint. The prefix *self* separates very useful concepts into two conflicting classes, each supporting a rival method. Teachers become divided into two corresponding groups. The progressives accuse the conservatives of roughly thrusting children into adult molds under the excuse of "self-discipline"; the conservatives retort that unrestricted license is no less ruinous when it is glorified as "self-realization." The practical teacher, who tries to avoid controversy by accepting both interpretations, is likely to use in one class a method based upon the idea of evil selves to be controlled, while in another class he employs a

method based upon a view of noble selves, which should be given opportunity for free expression. The prefix misleads teachers and parents into assuming that the self of a child is something which is already fixed and quite isolated from his growing, changing body. As a result, the methods employed in dealing with children become one-sided, narrow, and inflexible. Either the child is disciplined too harshly, or he is granted too much liberty. A clearer understanding of the nature of the self will help toward a better-balanced treatment of the child.⁵

Genetic Evidence against Fixity of Self

Two lines of evidence join in persuading parents and teachers to abandon the notion of a fixed self—either good or bad—and in requiring the invention of new methods. Recent studies in genetics indicate that earlier views, which considered animal and human heredity to be definitely fixed, were mistaken. Traits and abilities are not predetermined at birth or before. The living organism changes, *while* it grows, under the influence of a multitude of interacting factors derived from both ancestral and environmental sources. In each individual these many factors constitute an organic unit so unique as to evade complete prediction or full control. Fortunately, this negative fact leads into an understanding of favorable positive conditions upon which new educative methods may be based. First, new selves are evolving in each generation, some of which may prove to be more capable than any of their predecessors. Second, the environmental factors, including new school methods, may produce constructive changes in the growing selves of children. Thus, the biological evidence frees education from the false assumption that human nature is unalterable.

Rapid Social Change Implies Changing Selves

The other line of evidence is historical. In earlier times society was relatively static, so that change in the economic, political, and religious customs within the lifetime of an individual scarcely could be discerned. During the nineteenth century, and especially since the beginning of the twentieth century, the rate of social change has increased tremendously. This difference necessitates an almost complete reversal of educational methods. Instead of bringing immature selves into conformity with a static society, as in the past, the schools must now prepare each human venturer to participate in great social changes within his own life span. Consider a modern philosopher's interpretation of the historical evidence:

The whole of our tradition is warped by the vicious assumption that each generation will substantially live amid the conditions governing the lives of the fathers and will transmit those conditions to mould with equal force the lives of its children. We are living in the first period of human history for which this assumption is false. . . . The point is that in the past the time-span of important changes was considerably longer than that of a single human life. Thus mankind was trained to adapt itself to fixed conditions. Today this time-span is considerably shorter than that of a human life, and accordingly our training must prepare individuals to face a novelty of conditions.⁶

History and biology join in demonstrating that each individual is not one invariable self from birth to death but rather a succession of selves, supplanting one another, merging into one another. The man who greets his college chum after a separation of a dozen years with a cheery, "Well, well, if you aren't the same old Brown; you've been 'round

the world, through one war, into this and that, but you're still the same old Brown!" is indulging his school spirit rather than talking facts. The overwhelming evidence shows that the self does change. Beginning with the young child, teachers and parents must take responsibility for devising methods which will make this life of change a fruitful and happy one for all youngsters. Thus, youth will be better equipped to undergo the vicissitudes of fortune and to achieve in middle age a wholesome, mellow maturity.

The conflicts and confusions into which the prefix *self* and the notions of a fixed self lead us might tempt some teachers to discard the term and abandon any attempt to deal with children as individual selves. The evidence must not be so interpreted! Biology insists that each individual *is* a unique self, characterized by a continuity of the organism throughout all change. History suggests that adjustive foresight by individual selves is the key to an adequate life. Therefore, any modification of methods must be made in the light of "the difference between a self taken as something already made and a self still making through action."⁷

Creative Self-Expression Involves Changes in the Self

Teachers who attempt to reconstruct their methods in accordance with the idea of a growing self often encounter new difficulties. When a school begins to shift the center of attention from subjects called arithmetic, music, and history to selves named Robert, Barbara, and Frank, it develops constructive procedures but runs into dangers as well. The emphasis upon the active selves of children has resulted in clear demonstrations that activities which involve actual doing, making, and creating constitute means of education quite superior to textbook memorization and piecemeal drills

upon pre-digested subject matter. Yet this admirable contribution to teaching method has been dogged persistently by misleading statements which sound as though the self was the pre-existing, primary cause, and the educative activity was just an inevitable outcome of such a self. Terms like *self-development* and *self-cultivation* often lead the unwary astray.

One writer, for example, who lauds artistic self-cultivation through activity as a desirable process for both children and adults, insists upon pointing back to an original self, which is credited apparently with the educative outcomes.

Each [act] must be an honest objectification of the self. . . . The Man-as-Artist constantly strives to speak, to write, to make, to live, what he feels and thinks, in short what he *is* at a given moment. . . . He seeks only to make his utterance a replica of himself. . . . It is the integrity of the self which is the gathering-together principle.⁸

Perhaps the artistic genius of a Katherine Mansfield is a safer guide to the relations of the self during the creative act, although she reverses the description given above. She writes to her friend, the Hon. Dorothy Brett:

It seems to me so extraordinarily right that you should be painting Still Lives just now. What can one do faced with this wonderful tumble of round bright fruits, but gather them and play with them—and *become them*, as it were. . . . When I write about ducks I swear I am a white duck with a round eye, floating on a pond fringed with yellow-blobs and taking an occasional dart at the other duck with the round eye, which floats upside down beneath me. . . . In fact the whole process of becoming the duck (what Lawrence would perhaps call this consummation with the duck or the apple!) is so thrilling that I can hardly breathe, only to think about it. For although that is as far as

most people get, it is really only the "prelude." There follows the moment when you are *more* duck, *more* apple, . . . than any of these objects could ever possibly be, and so you *create* them anew.⁹

Certainly no one would deny the significant character of the self which enters into such an experience from the beginning. Unless the individual has already progressed far into artistic life, no such outcome can occur. Yet the main point is that the self is artistic in so far as it is capable of *becoming* a new, quite different self during the experience. All statements concerning self-expression need to be safeguarded by emphasis upon the fact that the so-called "gathering-together-of-the-self" is a change which occurs *as* the individual gives utterance to the best that is in him.

How difficult is the description of this dynamic process is exemplified in the last sentence. The phrase *in him* might be misinterpreted as if the "best" had already been attained *before* utterance occurred. The statement that the artist strives to make what he feels or is "at a given moment" comes very close to accuracy. Actually the psychological change—the gathering-together-of-the-self—is involved in the making or the uttering, so that the creative act is not a mere consummation of a self-cultivation which preceded it. Self-development involves positive change in the self.

Confusion over Subjective and Objective Aspects

Confusion arises often because one teacher emphasizes the subjective aspect of a learning situation, while another teacher may stress the objective aspect. For instance, if a ten-year-old child is drawing an original and attractive design, one observer may refer to the "creative activity"—the objective aspect, or change made in the environment. A

second observer may speak of the child's "appreciative awareness"—the subjective aspect, or change occurring in the self. On such an occasion it would be well for a third observer to call the attention of all to the fact that the objective and the subjective are interdependent and simultaneous aspects of a unitary process. When either a child or an adult grasps an opportunity to "objectify what he feels," this emerging feeling is both a guide and an outcome of the creative act. An objective activity is a *means* of education to which the teacher's attention must be directed as well as to the character of the child's self, if educational methods are to be soundly balanced. Careless statements which overemphasize the primacy of the self may unintentionally mislead teachers who are trying to escape from undue concentration upon subject matter.

Is Orientation Inward, Outward, or Both Ways?

The contrast between the objective and the subjective aspects of educative activities increases the conflict between diverse teaching methods when it leads to citing the self as a center of orientation for some learning acts but not for others. Rugg says that "in the creative attitude the orientation is inward," subjectively toward the self, while "in confronting a problem, the worker is oriented outward" toward external needs, toward the given objective conditions.¹⁰ Suppose a ten-year-old is drawing a beautiful design of his own, or composing a poem; then, according to this interpretation, the activity is guided by an "inner urge" of the youngster's own personal moods—an inward orientation. Let the ten-year-old turn to a practical problem of constructing counters and shelving for a school store; then the activity is said to be determined by external conditions, such as the

space needed, the material available, and the location in the room. Here the orientation seems to be outward. Although this contrast is suggestive of differences in degree of freedom and of other significant distinctions between problem solving and artistic creation, it becomes absurd if pressed far. For any individual *acting* in any environment must be oriented *both* ways—not only toward his own moods and desires but likewise toward the external conditions that limit and guide.

Take just the solving of the practical problems involved in the construction of the school store. The activity is begun because of a personal interest in the outcome. The “inner urge” to build store equipment is as truly an orientation toward the self as the desire to create a design or compose a poem. Every teacher needs to remember that in problem-solving fields, like mathematics, science, and the social studies, the learner’s subjective interest is as necessary as his understanding of the objective conditions to be met. Teachers and parents need to keep their eyes upon both aspects even in problem-solving situations.

It is equally clear that the creative acts of designing figures or composing poems involve attention to the objective outcomes seen and heard by the amateur artist and his friends. Neither of these products comes full-blown and perfect from the mysterious recesses of an artistic self. They too must meet objective conditions, although these conditions may not be determined so narrowly in advance. Teachers and learners in the creative arts do need to pay attention to the techniques involved in handling their materials. The orientation is outward as well as inward.¹¹

Those educators who are inclined to emphasize the distinction between the methods appropriate in the creative arts

and those useful in problem solving may mislead teachers, unintentionally, by comparing the "initial stage in the creative act" with an advanced stage of problem solving. The result is a sharp contrast between the "vague restlessness" or "undefined desire to express in an external product the internal experience of the individual" with which the creative act begins, and the exact statement of the problem which "fixes precisely the goal of the worker." If the process of comparison were reversed, one would find that up to a certain point the grasp of the problem was "more or less vague,"¹² while the artist would be found in the midst of his creative act giving abundant evidence of orientation outward. A sounder statement would acknowledge the vague inward feelings with which both learning situations begin, the outward conditions which both eventually meet in successful achievement, and the continuous interplay between the subjective self and the objective conditions throughout both processes. The distinction proposed is too clearly linked with an overemphasis upon the original self to serve safely as a guiding concept in teaching. Although one does not teach and learn mathematics in just the same way that he teaches or learns artistic designing, the underlying psychology is inclusive enough to constitute a warning against sharp distinctions in method.

Artistic Expression and the Source of Individuality

Again, is it wise to trust the development of well-rounded citizenship to the single method of self-expression in a fine art—plastic, graphic, literary, or musical? In the first place, this method, which has been stressed in a few private schools and by many of the special art teachers in the public schools, implies that artistic expression is the chief source of individu-

ality. This implication is not true. Art has nothing more or less to do with personality development than has many another form of activity. Cannot a cook, a carpenter, a chemist, or a Congressman have as much individuality as an artist? The personality development of a twelve-year-old may be retarded seriously by a teacher who overemphasizes his artistic talent. The teen age should be a period in which interests are broadened to include the scientific and the social, rather than narrowed to an art, however fine. The public school is responsible for developing citizens who recognize values in many fields, although each citizen may become a producer in a limited area only.

In this connection it may be worth while to consider the psychoanalyst's suggestion that artistic expression becomes under certain conditions a compensatory escape from social struggle and responsibility. When the notion that the artistic temperament must be wild and anarchic is cherished, and when the socializing phases of life are not fostered, selves that are far from wholesome may arise out of superficial sojourns in the fine arts. The teacher of adolescents may find it difficult to distinguish between a rebellious attitude produced by social pressure in the home or elsewhere and the budding of artistic talent. Parents and teachers need great patience and understanding to guide youths in their relations to the sophisticated arts. It is well to remember that antisocial attitudes have by no means characterized the art of the past. Usually the great artist has clarified and communicated "the central vision, the inmost inspiration of a people and an age."¹⁸ The way of life which has produced the great souls in the history of art has been a way of social and manual discipline as well as a way of individual freedom. Likewise, educative method today must incor-

porate in a unitary process both individualistic expression and social responsibility.

The danger of narrowness does not belong alone to artistic self-expression. Too much concentration upon any one type of activity involving only one method—be it scientific, artistic, or social—endangers wholesomeness.¹⁴ Many a scientist is warped because he sees life only through his refined instruments. Any youth who allows one small field of science to limit his outlook is in danger. Nor will a devotion to social affairs or even to politics guarantee a well-rounded life. Every city and village in the land has men and women who spend their time in social clubs or engage actively in politics without developing any noteworthy depth of personality or strength of character. The way toward self-development involves sharing in a wide range of human interests.

Various Interpretations of the Growing Self

What then is the self? It is not something inborn and fixed for life by heredity.¹⁵ The origin of the self lies with the origin of intentional language.¹⁶ When thinking begins, the self emerges out of the infant's struggle for motor control.¹⁷ Otto suggests that in early childhood "the self takes its rise from the development of independent interests."¹⁸ When the child says to himself, "This doll is mine," or "This secret is mine," he becomes a self. Bode, thinking of character growth, identifies the self with the person's ideals, at the same time reminding us that the diverse ideals conflict with each other, so that the self "is in the making all the while." Accordingly, "selfhood begins when moral choices become necessary."¹⁹ From the standpoint of aesthetics one becomes a self when he gains ability to appreci-

ate and to create something fine of his own. These various interpretations center on the fact that the self grows continually in various but related ways. The self is essentially unique and individual, yet it could not come into being and develop without the background of a stable society which provides a language, gives protection to interests and ownerships, suggests a variety of ideals, and fosters certain aesthetic values. The self is a changing organism in a changing society; it is at once the cause and the effect of social change.

A Danger to Democracy and to the Individual Self

Before concluding, we may turn from the danger of depending upon a fixed self or predetermined tendencies in self-development to the opposite side of the picture. A contrasting danger consists in trying to create new selves, as if out of new cloth, without regard for the warp and woof of the experience and the present interests of those selves. Strange as it may seem, the educators who talk most about the creativeness *within* the child are likely to be found making the most radical proposals for reconstructing the child's ideas and ideals *from without*. For example, when Counts²⁰ dared a group of creative teachers to come out boldly in favor of a new social order, many of them accepted the challenge and turned vigorously and courageously toward remaking children whose selves are the products of a more or less decadent social situation. These teachers have to combat both previous schooling and present home training. They take their inspiration no longer from the creative powers within the children but from a vision of a new society. The main idea is to fit children for life in a new social order. Furthermore, these teachers sincerely believe that if youth is not given insight concerning the currents, and

especially the undercurrents, of our changing society, the desired type of social organization will never be achieved. Ideas of this sort have produced wholesale curriculum changes. The social studies have been given a still larger place in the public schools. Current-events periods have been lengthened and devoted to economic and political movements of the day. Some educators seem determined to create new selves in the present generation of school children within a brief period. And so teachers and parents need to face the question: Are the values involved worth the risk?

From the standpoint of method there is a risk that children will be pushed through economic and political subject matter quite beyond their grasp. Not long ago while the writer was visiting a school in the vanguard of this movement, he saw a sixth-grade class in current events struggling with and succumbing to an explanation of disarmament according to a method close to indoctrination. That is, the teacher presented only one side of the argument in order to lead the pupils into an acceptance of his own views. Several other risks are incurred in such a procedure. The sixth-graders may get only a verbal smattering of the answers to war's devastation. They may get the habit of accepting indoctrination rather than thinking as independent selves. Finally, these radical shifts are apt to split each self into two conflicting parts—the "old" picked up at home and the "new" acquired at school—rather than to establish those home and school relationships which will continually widen the common interests among teachers, parents, and children.²¹ Such a procedure violates two democratic attitudes—experimental investigation and social co-operation.

Are the dangers involved in dealing with the selves of

youth too great for the public school to risk? Shall teachers content themselves with drilling upon subject matter and skills, leaving the selves of the pupils to take their chances in the drift of social chaos? Or, shall we courageously attack the problem of changing the nature of each individual self? Shall we search for a method in which the modification of the self is given first consideration in the interest of a better society? Perhaps ways of evading the worst dangers and of making substantial progress may be found when parents and teachers join together in a further study of the relations between the development of the self and the improvement of society within a democratic form of social organization. A democracy based upon the increased sharing of common purposes may constitute a stable environment in which selves of all ages may continue to grow and change without being "split" by conflicting pressures or "upset" by political upheavals.

NOTES

1. Woelfel, Norman, *Molders of the American Mind*, New York, Columbia University Press, 1933, pp. 165ff. This volume is a critical review of the social attitudes of seventeen leaders in American education. The student may be interested to read Woelfel's analysis of the following leaders in connection with references made to them in my text: Bode, Charters, Counts, Dewey, Judd, Kilpatrick, Rugg, Thorndike.

2. Cobb, Ernest, *One Foot on the Ground*, New York, G. P. Putnam's Sons, 1932, pp. 19ff. A vigorous attack upon extreme views of freedom for children.

3. Rusk, Robert R., *A History of Infant Education*, London, University of London Press, 1933, p. 104. The quotation is from a chapter devoted to a critical analysis of Dewey's pragmatic philosophy as applied to the education of young children. Dr. Rusk is Principal Lecturer in Education to the Glasgow Provincial Committee for the Training of Teachers and is also Director to the Scottish Council for Research in Education. A more detailed criticism of "Pragma-

tism in Education" from the idealistic standpoint occurs in Rusk's *The Philosophical Bases of Education* (London, University of London Press, 1928). Another British author, Godfrey H. Thomson, Bell Professor of Education at University of Edinburgh, devotes a chapter to the critical evaluation of the work of John Dewey in *A Modern Philosophy of Education* (New York, Longmans, Green and Company, 1929).

4. Dewey, John, *Human Nature and Conduct*, New York, Henry Holt and Company, 1922, p. 138. The quotation is from Part II, "The Place of Impulse in Conduct," in which the function of impulse in reorganizing habit is made clear. At this point Dewey is criticizing false simplifications, such as separate, fixed instincts.

5. The reader will recognize that the more common notion is that the self is a mixture of goodness and badness. For further discussion of such views and of the genetic evidence against them see my Chapter VII.

6. From Whitehead, A. N., *Adventures of Ideas*. By permission of The Macmillan Company, Publishers. New York, 1933, pp. 117ff. This author also is attacking oversimplifications, such as the concept of an "economic man" whose wants were supposed to remain the same from generation to generation.

7. Dewey, *Human Nature and Conduct*, *sup. cit.*, p. 139. The author contrasts the view that "action has to contribute profit or security or consolation to" a fixed self with the view that takes life as an adventure "in creating a self which shall be more inclusive than the one that exists."

8. Rugg, Harold, *Culture and Education in America*, New York, Harcourt, Brace and Company, 1931, pp. 230ff. The quotation comes from Chapter XII, in which a contrast is drawn between science and art. "The central concept of science is analysis; the central concept of art is integration. In science we concentrate our attention on parts; in art we focus our beings upon wholes." (p. 234) Rugg calls attention to Dewey's pragmatic interpretation of language not as an expression of the self but as a useful tool or means toward a desired social result. For a discussion of the interpretation of language as analytical see my Chapter IX.

9. Reprinted from *Letters of Katherine Mansfield*, edited by J. Middleton Murry, by permission of and special arrangement with Alfred A. Knopf, Inc., authorized publishers. New York, 1932, pp. 73f.

10. Rugg, *op. cit.*, pp. 368-377. The student's view of the issue

involved will be broadened by reading Chapter XIX, "Self-Cultivation and the Creative Act: Issues and Criteria." The author concludes that in addition to creative art the schools need also representative art, which employs the essential attitudes and procedures of problem solving, collects facts, and conveys a message. He insists, however, that representative art and creative art are two different things and should be clearly distinguished from each other.

11. Dewey, John, *Art as Experience*, New York, Milton, Balch and Company, 1934, p. 67. A quotation will indicate Dewey's own view concerning orientation: "Erroneous views of the nature of the act of expression almost all have their source in the notion that an emotion is complete in itself within, only when uttered having impact upon the external material. But, in fact, an emotion is *to* or *from* or *about* something objective, whether in fact or in idea. An emotion is implicated in a situation, the issue of which is in suspense and in which the self that is moved in the emotion is vitally concerned. Situations are depressing, threatening, intolerable, triumphant. Joy in the victory won by a group with which a person is identified is not something internally complete, nor is sorrow upon the death of a friend anything that can be understood save as an interpenetration of self with objective conditions." These lectures upon the philosophy of art are an adequate answer to the criticism of Dewey for alleged overemphasis upon problem solving and consequent neglect of aesthetic development.

12. Dewey, John, *How We Think*, Boston, D. C. Heath and Company, 1933, rev. ed., p. 108. The author emphasizes the prolonged vagueness of the problem by saying: "We know what the problem *exactly* is simultaneously with finding a way out and getting it resolved." This Chapter VII, "Analysis of Reflective Thinking," should be read throughout with the problem of orientation in view.

13. Kallen, Horace M., *Indecency and the Seven Arts*, New York, Liveright Publishing Corporation, 1930, p. 112. The quotation is taken from the essay entitled, "The Arts under Dictatorship." For suggestions concerning the methods needed to reconstruct our industrial civilization so it will enhance individuality, see Kallen's *Individualism: An American Way of Life* (New York, Liveright Publishing Corporation, 1933). See also Note 10 to my Chapter III, p. 76.

14. See Chapter XI.

15. See Chapter VII.

16. See Chapter VIII.

17. Dewey, *How We Think*, *sup. cit.*, p. 206. The author says:

"The joy the child shows in learning to use his limbs . . . and the rapidity with which intelligence grows in the first year and a half of life . . . are sufficient evidence that the development of physical control is not a physical, but an intellectual achievement." This Chapter XIV, "Activity and the Training of Thought," indicates clearly how "selves" grow through constructive occupations. See also in my Chapter IV the section entitled, "The Young Child's Organization of Motor Activity," p. 83.

18. Otto, M. C., *Things and Ideals*, New York, Henry Holt and Company, 1924, p. 141. The quotation is found in Chapter VI, "The Self." The author points out that "we fail to appreciate the fact that our so-called *human* nature is in many important respects *socially induced* nature." Otto follows his reinterpretation of the self with a closely related discussion in Chapter X, "The Soul."

19. Bode, Boyd H., *Fundamentals of Education*, Chap. IV. In this chapter entitled, "The Development of Ideals," the author says (p. 71): "When ideals are treated as ready-made and final, it means that development has stopped; if treated as agencies for analyzing new situations, they lead to new insights by which these same ideals become enlarged and transformed." From Bode, Boyd H., *Fundamentals of Education*. By permission of The Macmillan Company, Publishers, New York, 1921.

20. Counts, George S., "Dare Progressive Education Be Progressive?" *Progressive Education*, April, 1932, pp. 257-263. The movement to stimulate more vigorous social action and more courageous social teaching with its implications for democracy is treated more fully in my Chapter XV.

21. Thayer, V. T., "Schools and the Shifting Home," *Survey*, September 1, 1930. This thoughtful article traces the sources of difficulty and suggests remedies.

CHAPTER XI

Harmonizing Diverse Methods

The problem of harmonizing methods in the public schools of the United States did not really arise until the turn of the twentieth century. Rote memorization so fully dominated early American schools that no question of adjusting diverse methods to each other could occur to teachers, parents, or pupils. Problem solving, aesthetic development, and social procedure alike failed to challenge effectively the reciting of lessons. Although in the latter half of the nineteenth century the development of the physical and biological sciences in private and commercial laboratories threatened the schools with an invasion of the problem-solving method, the schoolmasters stoutly resisted this pressure from the outside. When the Oswego object-teaching method developed from Pestalozzianism following the Civil War, most teachers kept it in channels so restricted that the pupils continued to give uniform answers in concert even about natural objects presented for their (supposedly free) observation. Likewise, the Herbartian method, which swept over the country in the nineties, held the pupils so closely to a formal series of steps—preparation, presentation, comparison, generalization, and application—that no conflict between memorization of knowledge and independent problem-solving arose. “Re-citing,” a single inclusive

method, held most schools tightly in its grip until after 1900.¹

Now many teachers have come to believe that each subject and each kind of activity has its own characteristics; consequently, each requires a particular treatment. Leading educators often claim that diversity of method indicates an up-to-date school system. Schoolmen generally have become wary of any method faddist who insists that his device is the only progressive plan—be it individual instruction, unit method, activity program, or whatever. Although we recognize the desirability of fitting each learning difficulty neatly with an appropriate approach, we venture to suggest that a multiplicity of methods may result in serious confusion. Today pupils and teachers encounter at least four different methods: (1) skill and knowledge drill, (2) problem solving, (3) aesthetic, and (4) social. Shall the public schools move toward sharper distinctions between methods or toward a higher degree of harmony? In what direction does substantial progress lie?

Contrasting Methods and Their Objectives

Furthermore, a study of the school situation indicates that the problem is broadened by a corresponding diversity of aims underlying the methods. In order to avoid the common error of separating means from ends, these interdependent aims and methods must be examined together. So we begin with a brief consideration of each of these four widely used methods with its respective educational objective.

First, pupils should learn by thorough drill the skills and the knowledges that are most *useful* in present-day living.

This practical objective assumes that the pupil is prepar-

ing to be an effective producer in a great industrial civilization. Consequently, he must conform to the economic conditions that he finds in his community. Thus, his contribution to society is to be made smoothly without introducing any retarding friction or labor difficulties. He is trained for successful competition with other producers. From this standpoint the curriculum is selected by surveys of present economic activities, including detailed analyses of the jobs commonly occurring in the industrial community. Emphasis is placed upon the attainment of minimum, necessary work standards, which involve reduction of errors and increase of speed. The methods employed stress drilled repetition of activities in accordance with definite rules.

Second, pupils should acquire *problem-solving ability*, which involves a self-reliant attitude.

This objective, like the preceding, is regarded as primarily practical and useful. It differs in emphasis by assuming that the problems of life are changing so constantly that education must develop ability to meet new difficulties effectively. Facts and skills are treated as incidental tools in solving typical problems. As in the former aim, the purpose is to equip the individual for a productive life and through his personal efficiency increase indirectly the total resources of society. The problem-solving curriculum draws from a variety of fields those problems which promise to promote continuous growth of ability in each individual. The method stresses individual independence in the proposal and development of suggestions with guidance by the teacher's Socratic questioning and by the findings of laboratory and practical tests. Mark the contrast with the emphasis in the preceding method upon repetition of activities prepared for the learner by the teacher.

Third, pupils should *develop aesthetically*, that is, grow in

appreciation and judgment of the various arts and attain some degree of artistic skill.

This objective points toward an increase of each individual's capacity to enjoy beauty in nature and art with a resulting rise in the general cultural level. The emotional or feeling aspect of personality rather than the intellectual is to be modified; the learner is seen as a happy consumer of society's best resources rather than as a hard-working economic producer. While in the past this aim has been associated with leisure rather than with work, it is now widely assumed that the gradual supplanting of a toil-filled world of scarcity with a world of plenty, granting more free time, justifies a shift in emphasis toward aesthetic values. In addition, freedom from the struggle for bare necessities may promote a development of aesthetic quality in the workman's products without reducing their utility. Consequently, this aim becomes sufficiently comprehensive to stand beside the more utilitarian ones already mentioned. The aesthetic aim usually implies that the artist will gladly share his art with those who have attained capacity to enjoy its quality. The methods employed, however, are quite as individualistic as knowledge drills and independent problem solving. They stress freedom to draw, to dramatize, to write verse, according to one's own fancy, and to judge independently one's own artistic acts and those of others. It is assumed that such freedom is essential to the cultivation of personal appreciation and judgment. This emphasis upon freedom contrasts so sharply with the rigid standards of scientific accuracy and practical utility, which the two preceding aims stress, that the aesthetic method, even in its production phase, seems to stand at a play level rather than at a work level in the school.²

Fourth, pupils should acquire *social attitudes* which lead

toward a *sharing* of interests involving the opportunities and responsibilities of productive work and the pleasurable consumption and use of all the resources of society.

This objective centers upon social reconstruction through individual character building by group activity with the elimination of emotional maladjustments. Pupils are regarded as the maturing citizens of a democracy. The school attempts to replace selfishness by a kindly, respectful, companionable, co-operative attitude toward all persons. Honesty, fair-mindedness, and sportsmanship are cultivated. The method most frequently advocated is supervised play—the learning of sportsmanship in games. A second device is the school club, in which pupils share responsibility and develop leadership. In general, reliance has been placed upon extracurricular activities on the semirecreational level, while artistic achievement, problem solving, and the acquisition of knowledge have remained incidental elements within these activities. The more approved methods involve an indirect approach to the change desired.⁸ The fourth combination of aim and method is set off from the three already described by its indirectness as well as by the contrast between the social and the individualistic emphasis. In the social method production and consumption appear to harmonize through cultivation of the sharing attitude.

High-School Departmentalization Confusing

These four objectives and their corresponding methods constitute four divergent paths of education. At each educational crossroad the pupil and teacher must choose apparently one of the four paths. If different paths are chosen at successive crossroads, conflict may inhibit progress. No wonder that both teachers and learners become confused.

Take, for example, the boy or girl who on entering the high school encounters a new experience of meeting during the week several different teachers of different subjects. The departmentalized organization of the secondary school threatens to split up the youth's life. In the English-composition and foreign-language classes he feels the force of drill upon details. Even in history he may be held closely to fact acquisition. He becomes schooled in our first method. The second method, which demands initiative in problem solving, may come as a shock to him in the biology class, although he may be accustomed to it in mathematics. As a consequence of these sharp contrasts many a pupil acquires emotional aversions toward certain subjects and teachers because they are on one side or the other of this method line. Some pupils come to like classes where rote memory serves, while others prefer opportunities to think for themselves. Both groups become emotionally skewed and intellectually confused.

When these high-school memorizers and problem-workers meet the art or the music teacher, their conflicts are likely to increase. In their art and music-appreciation courses such pupils do not understand how to use their time profitably, for no textbook pages are assigned to be learned nor are any means of checking their conclusions provided. Their new freedom to enjoy individually and to participate creatively is so different from the restrictions of their previous drills and problems that many high-school youngsters find artistic development a heavy task rather than a joyous experience. The difficulty is especially great for those pupils whose elementary-school teachers have concentrated upon training for the production of useful skills, facts, and problem answers, but have failed to cultivate any taste for the consumption of

beautiful music, art, literature, or even the beauties of the out-of-doors. Again strong resentment may develop in the aesthetically unadjusted pupils, while at the opposite end of the scale a few of the artistically inclined forthwith abandon problem solving and lose all interest in the acquiring of knowledge except in one little corner of the broad field of the arts.

Finally, a group of high-school students, who have now encountered three different individualistic methods—drill, problem solving, and aesthetic—are steered by a fourth instructor into a club room for social learning through extra-curricular activities. Is it any wonder that these youths are either slow, awkward, and diffident or impulsive, boisterous, and thoughtless in the midst of the new social situation? How can they be expected to seize the opportunity to widen their common interests and to work co-operatively? Under such circumstances the social method may merely intensify the pupil's feeling of insecurity.

Out of this confusing conflict of methods and the attempts of students to find security emerges the common query of learners, "What does this teacher want anyway?" High-school youths and even college students spend much of their time classifying their instructors into four grand divisions: (1) drillmasters, (2) problem posers, (3) appreciation freers, and (4) co-operation cranks. Consequently, the clever mark-chaser adjusts himself to different demands as he goes from class to class; he develops at least four diverse scholastic personalities. When students resort to this old device of compartmentalization in order to reduce their confusion, the result, as usual, is the actual deepening of the conflicts. Can such a process produce a well-rounded education or a well-integrated individual?

Unstable and Unbalanced Elementary-School Programs

Fortunately the elementary-school youngster is protected to a considerable degree from the conflicts of departmentalized secondary education by the common practice of employing one teacher for all the subjects. The pupil is saved from the emotional shock of adjusting to four or more different teacher personalities each school day. Nevertheless, many an elementary teacher is so closely bound by the compartmentalizations formed during his own high-school and teachers-college years that he becomes a different personality as he teaches each different subject. To the fifth-graders their teacher seems a very different person during the arithmetic period from what he is while aiding and encouraging them in original dramatizations. On the playground the fifth-graders find that they are treated quite differently from the way they are in the geography class. Consequently, the school takes on an atmosphere of insecurity and the teacher appears to be an unstable personality. Such sharp shifts may seem necessary, but clearly they are inconsistent with the advocacy of unit method or of integrated personality.

In contrast, an elementary-school teacher may be inclined through training and through interest in a certain subject, with its preferred method, to ride a particular method hobby throughout the whole school day. First, look at the drill-master who never gets beyond facts and skills even in science and music. At regular intervals he measures pupil progress by objective tests and charts accurately the slowly rising curve. For such a teacher, school clubs and extracurricular activities are a waste of time unless they serve as devices for increasing skill and for learning facts. Second, think of the

problem poser who forces his method upon the art class until it becomes a study of mathematical space relations and structural design. For him every school club should at all times be face to face with an intellectual problem; co-operation is considered unnecessary except as a method of gathering suggestions for solutions. The child is regarded as a research scientist in embryo; experimental inquiry in preparation for inventive, productive life is to fill his school days. Third, imagine the appreciation freer who sees the beauty in mathematics and feels the drama in history as he attempts hour after hour in spite of discouragements to impart his aesthetic experiences and a refined consumer's attitudes to crude sixth-graders. Last, consider the co-operation crank who must always have the children working together in friendly groups. No one is ever allowed to have an aesthetic thrill all by himself, or to solve a whole problem without receiving suggestions from his comrades, or given time to study a spelling lesson in quiet isolation. Parents, to which of these four teachers will you entrust your child? No doubt you reply: "They are all unbalanced; we prefer sane teachers for our young children."

Although few elementary teachers have narrowed themselves to any one of these four methods, almost every teacher is inclined either toward an overemphasis upon one objective or toward a prejudiced neglect of one method area. An examination of the teachers within any person's acquaintance will constitute a test of this statement. Occasionally every teacher, even though he is a specialist on a high-school or college staff, may profitably consider which method he is leaning toward and which he is neglecting.⁴ As a result balance might become more characteristic of teachers.

Will the Growth-Stage Theory Bring Harmony?

One suggestion for avoiding these conflicts is to emphasize different methods at successive periods in the child's life. This proposal is based upon the assumption that the learner passes through a series of life stages—each stage having its own set of characteristics and, therefore, its appropriate method.⁵ For example, the first three years of a child's education might be devoted to social development; in the kindergarten five-year-olds can learn to live together amiably largely through play; during the next two years these children as six- and seven-year-olds could learn to plan and carry out activities appropriate for them in groups which may progress in size from three or four children to five or six. Whatever knowledges and skills were gained during these early years would be considered incidental to the main aim of acquiring a co-operative attitude. If problems were solved and aesthetic preferences formed, certainly these would not be emphasized. The teachers of the first three years should be chosen for their ability to guide young children through social-emotional adjustments in a friendly way rather than for their training in the fine arts, their capacity to solve intellectual problems, or their familiarity with the techniques of teaching reading, writing, and arithmetic. It might be advisable for a certain teacher to progress with her pupils through the three years in order to use most effectively the intimate understanding acquired concerning each child's social characteristics and difficulties.

The next four years, including grades three to six, might be devoted, as is now customary in many schools, to drill upon useful facts, skills, and processes. Social habits would now be regarded as well established, so no emphasis upon

them would be required; aesthetic appreciation and problem solving could be deferred until a foundation of knowledge and skill had been acquired. While with the five-, six-, and seven-year-olds promotion would be based upon ability and inclination to co-operate, the eight-, nine-, ten-, and eleven-year-olds would have to demonstrate in standardized tests their ability to meet the achievement norms of each successive grade. As a consequence, considerable retardation might be expected in these years, while in the first period only the rare emotionally maladjusted child would be required to add another year to the usual three. It is clearly evident that the teachers chosen for the second period should understand the techniques of teaching the fundamental skills, and of imparting knowledge on these levels in the social studies and the sciences. A different teacher each year would be advisable because of the specialization in subject-matter techniques upon the successively higher levels.

Educators have argued often enough for a special emphasis upon aesthetic appreciation and expression as youth enters the adolescent period. The junior high school, comprising grades seven to nine and including the normally advanced twelve-, thirteen-, and fourteen-year-olds, apparently offers a wonderful opportunity to take advantage of the "sense of exhilaration" and the "heightened demand for pleasure, recreation, and self-expression" said to be brought on by rapid growth in the adolescent girl or boy. Instead of allowing misnamed criminal tendencies to develop, why not provide an emotional outlet in the fine arts? Accordingly, let these youths meet as their teachers only artists—literary, musical, plastic, graphic, dramatic; exclude mathematicians, scientists, social idealists, and drillmasters of every sort from the junior-high-school staff. Thus, the conflict

will be reduced to the diversity among the arts and artists—surely enough strain for a youngster of twelve. One general atmosphere of free appreciation and individualistic expression will pervade the life of youth for three quickly passing years.

The rural or city superintendent who has the courage to follow this scheme through to the end of the public-school period will have remaining the three years of the senior high school in which problems of all sorts may be attacked. In addition to mathematics, physical science, and biological science, a liberal offering in the social sciences of history, politics, economics, sociology, and psychology may be included. Practical problems of vocational choice and actual vocational preparation need to be met also. Even deeper problems from the fields of ethics and social philosophy might be considered in relatively simple ways. The school would concentrate upon vital problems and avoid conflict with other methods. Many facts and skills would be acquired incidentally while solving problems, but no courses would be devoted to drill on foreign languages. Aesthetic development would now be left to care for itself on the leisure-time, recreational level. Social development in this period would be extracurricular except as problem solving required intellectual group co-operation. The teachers selected for youth about to meet the problems of business life, professional education, and perhaps homemaking must be able problem-solvers themselves. They must know life beyond the school, at least in the areas with which they are concerned, if they are to give wise guidance to young people. As a result of such training, the high-school graduate is supposed to step forth with a clear view of the problems before him and, especially, of the methods science suggests

for their solution. The assumption is that the co-operative, social-sharing habits of the early grades, the fundamental skills and knowledges of the later grades, and the aesthetic, high-level consumption tastes of the junior high school will all have merged into the independent, courageous, problem-solving individual—the end product of the public-school system.

An Integrated School Contrasted with Four Stages

Such a plotting of a child's life into successive stages is intriguing to inexperienced theorists, but the attempts to give scientific justification for such a process have proved inadequate. Modern biologists and psychologists have denied the existence of stages as distinct as those proposed a generation ago by G. Stanley Hall.⁶ A child's life is not divided sharply into four distinct stages. Although five-year-olds do have common characteristics which distinguish them from eight-year-olds and fifteen-year-olds, no sudden change occurs at a particular birthday or even at adolescence.⁷ Therefore, sharp changes in school methods are dangerous. In addition, all experienced teachers know that in any school grade containing twenty-five or more children one finds a wide range in chronological age, physical maturity, mental age, and social development. Thus the children under the care of a particular teacher are in diverse stages of growth. Although transitional years might be introduced—for example, in the third grade, the seventh grade, and the tenth grade—to bridge the gaps, respectively, from social method to drill, drill to aesthetic freedom, and aesthetic to problem-solving methods, the real need is a thorough unification and integration of the public-school system from the nursery school or kindergarten to the end

of the secondary school—yes, beyond into vocational life, professional training, homemaking or other forms of adult education.⁸ Since we cannot evade the issue by the four-stage device, we must face the problem again.

The reader no doubt has protested already that in actual school practice these four aims and methods enter into more or less intimate relationship with each other. Furthermore, all four methods should begin early in the child's life and continue throughout the school period, if we wish at the end a well-balanced and well-integrated individual.

"Making" Activities as a Basis for Harmony

Consider the degree of relationship which can be achieved in such a type of learning as manual construction. The preschool child needs to acquire muscular control or motor skill, so we provide him with working materials—sand piles, building blocks, modeling clay, paper and paints, boards and nails. We give him a chance to *make* things. As the "making" process goes on through several years, he learns to choose between the substantial and the insubstantial, the harmonious and the inharmonious; he develops practical judgment in the use of his eyes, ears, and hands; he begins to have an aesthetic sense. This learning is individual and independent. It is sustained by experience more than by the word of parent, teacher, or textbook. The child acquires individual interests; he becomes self-reliant. Whatever skills he acquires, whatever problems he solves, are tested objectively. Each making activity brings into intimate relation the aims and methods which we have numbered first, second, and third.

How is the fourth aim and method of social sharing involved in making activities? On what are mutual respect,

affection, and the sharing of interests based? We must concede that a direct feeling of affection depends in part upon crude conditioning—propinquity with pleasantness. But the growth of desirable social attitudes depends also in large measure on what one finds the other person can do or make. In the kindergarten this intelligent social appraisal begins. More or less consciously the older child and the adult come to respect those persons who can do their part of the day's work in accordance with their peculiar abilities. One feels willing to share with them his own individual product. The diversity of talents promotes rather than reduces the possibility of building a society which is knit tightly by bonds of mutual interest. At the same time emotional stress and mental maladjustment are relieved in the midst of making activities. Burnham's statement that a task, a plan, and freedom are the essentials of mental health implies that here lie foundations for a wholesome society.⁹ An appropriate opportunity to make things may produce indirectly those desirable social attitudes which are the essence of personal character.

The school situation which will combine all four aims and their accompanying methods is one in which children work side by side, so that they may see each other's work and thereby grow in mutual respect. Clearly, the work must be diverse and independent, not merely the running of school-achievement races at varying speeds. Some of the work may well be quite independent in the sense that the individual follows a special interest of his own while his classmates participate in it only as critics and admirers of the product. At least this much should be granted in agreement with the point of view that the individual shall have opportunity to discover his own abilities through action and

to form his own appreciative judgments of his own activities. Each individual must experience the artist's feeling for his art. As Rugg puts it, "This attitude of self-cultivated awareness seeks as its consummation the production of honest, integral things . . . a spoken sentence, a symphony of tone, a motor car, a school, a dramatic scene, a personal philosophy of living."¹⁰ Much of the work, however, may well involve a closer co-operation of individuals in some joint project to which they contribute diverse products for a common interest. The group activity will include also conferences in which ideas originating with individuals are developed, tested, modified, and organized into a plan or conclusion by joint problem solving. Thus, the children may acquire a social way of life that is in accord with the democratic principle of sharing.

Democracy, Psychological Relatedness, and Social Change

From the standpoint of method, two general conclusions may be emphasized. First, if educators wish the growing generation to be well informed, scientific, artistic, and co-operative, a variety of appropriate activities and methods must be provided in the school program. Experimental problem solving and artistic expression must both be included. Along with these more individualized activities socialized group action must occur. These co-operative activities must be vital enough to make use of energies which are now flowing in maladjustive, competitive channels. Second, the production of forceful, integrated individuality will be promoted through activities whose concrete goals necessitate intimately related movements involving all four methods with the consideration of usefulness, intellectuality, aesthetic value, and co-operativeness. Instead of

trying to keep the four methods separated, the teacher should endeavor to bring them into as close "relatedness" as progress toward the selected goals will warrant.¹¹

The so-called "unit method" of the elementary school will be strengthened as teachers realize that a more effective degree of unity involves, in addition to bringing together different subjects, the relating of apparently diverse methods. Yet the method emphasis may still vary in accordance with the social needs of the time. For example, when Dewey calls for renewed attention to social aims and social methods, he justifies this emphasis by the statement, "The creative activity of individuals as a necessary *part* of the wider office of social reconstruction has been the element in the theory which has affected practice in this country in a serious way."¹² This statement implies that in Dewey's opinion our progress in the arts and their individualistic methods has been greater than in social-sharing activities. Whether or not we agree with Dewey in the implied emphasis upon social democracy, the problem of relating diverse methods will involve continuously the question of appropriate emphasis for the particular situation faced. As teachers plan each school activity, they must consider carefully what contribution it promises to make toward effective knowledge and skill, scientific attitude, appreciative awareness, and co-operative spirit. They must recognize that none of these aspects can be enhanced except through specific activity. None can be left safely to "natural development" nor to "incidental learning."¹³ Nor should wholesome integration be left to mere chance. The teacher must be ever ready to adjust the method emphasis to the needs of the occasion. Communities, schools, parents, and teachers need concrete social objectives to guide and harmonize the psychological methods used.

Although the problem of general aims is elaborated elsewhere,¹⁴ emphasis should be placed here upon the present need for a clear view of the democratic aim. Democracy is much more than a social method; democracy defined as a continually widened sharing of interests is our social creed. Unless the democratic aim guides every method, neither harmony nor progress will ensue. A change in the social order, either toward the Right or toward the Left, would bring about a radical change in the methods used in schools. While other methods than those mentioned might be welcomed in a democratic school, they must pass the criterion of promoting the extension of common purposes. Since the integration of personality will ever be an important condition of life, the democratic social aim, which contributes to human freedom and integration by increasing one's capacity for sharing in common concerns, must never be made subservient to any method.

Even "Making" Activities Beset by Difficulties

Although the "making" type of activity has been stressed in this discussion because its recent use in many schools has demonstrated its flexible adaptability to stimulation of search for information, problem solving, individual creativeness, and social growth, a warning must be given. There is danger that the making activities of the school will approach too closely certain noneducative forms of industrial production. Making things at school differs greatly from making things in a commercial factory under prevailing economic conditions. The school is concerned with the process of child growth even more directly than with the product; too often the factory manager concentrates only upon quantity production. If the young woman tending the thundering machine becomes a neurotic wreck after three years, the soulless

corporation is not concerned. With ownership in the hands of absentee stockholders, a business "concern" is concerned only with production at a profit. On the other hand, the school that adopts making activities should be concerned to keep production and consumption intimately related. As long as children, either as individuals or groups, make things for their own use and for shared enjoyment, balanced growth as well as quality of workmanship are on a sound basis. Whenever marks for the pupil or professional credit for the teacher centers attention on a passable product, making activities begin to be less educative.¹⁵

The educative results attained through making activities in the modern school suggest the possibility of reorganizing the productive activities of adult society so that they may further the widening of common interests. The making activities of each adult may become, under changed conditions, a means toward a fuller understanding of social life and a widened appreciation of the significance of his own vocation. The adult worker's day-to-day activities may promote continually his increased participation in the common purposes of his community. The fundamental changes necessary in industrial organization can scarcely occur, however, until the criterion of sharing by all supersedes the making of money profits by the few. Nevertheless, the progress made in schools by means of making activities toward more abundant living for all the children gives hope in the larger task of reconstructing such economic organizations as the labor union and the business corporation so that they will promote the building of a democracy based upon the sharing of interests.¹⁶

The public-school teacher will think of many kinds of activities, other than the "making" sort, which may furnish

fruitful situations for the harmonization of diverse methods. Pupils may grow through finding, sensing, using, contemplating, organizing, and other activities without making any physical object. Whenever an activity promises well for the organic integration in which individual happiness and social sharing merge, let us try that activity without quarreling about its classification, for no sharp lines can be drawn between "sensing" and "making," or between "making" and "contemplating." All parents and teachers will certainly agree that although abundant "consumption" is the end or purpose of living, "production" by everyone according to his present ability is the only democratic means thereto.¹⁷

The application of such an inclusive "unit method" may not be as easy as using a single, relatively simple method. Teachers may find it harder than shifting from one distinct method to another as the subject, type of activity, and pupils change. Nevertheless, the beneficial effects of integrated and continuous growth, when compared with the dangers which are evident in the opposite direction, warrant the attempt in spite of the difficulties. Of course, it is generally recognized that a differentiation of subjects is desirable as pupils move up into the later elementary grades and especially in the secondary school.¹⁸ Nevertheless, teachers need to use all possible ways of avoiding conflict of methods and of helping the pupils to meet without confusion whatever differences are necessary. Even parents may find that a similar harmony of methods may be achieved in the home, so the school's movement toward harmony with diversity may permeate the child's whole life.

NOTES

1. Thayer, V. T., *The Passing of the Recitation*, Boston, D. C. Heath and Company, 1928, Chap. I. This chapter entitled, "The Origin of the Recitation," depicts the origin of the group recitation in the monitorial school and traces its persistence in the face of Pestalozzian and Herbartian reforms.

2. See Chapter X.

3. See Chapter VI, the section entitled, "Indirect or Incidental Methods of Character Building," p. 132.

4. Mones, Leon, "Privacy in Educational Method," *Journal of Educational Sociology*, December, 1937, pp. 243-248. The author calls attention to the widespread neglect of broad social conditions and attitudes in the overemphasis upon narrow physiological skills in establishing programs for remedial reading.

5. Miller, Irving Elgar, *Education for the Needs of Life*, New York, The Macmillan Company, 1917, Chap. III. In this chapter entitled, "The Child," certain stages of development are presented—kindergarten-primary, middle grades, and high school—with the "dominant point of view in instruction" to be followed for each. The method of interpretation is suggested in the summary (pp. 151-153). The student should read the whole chapter before deciding whether or not the development stages are overemphasized.

6. See Note 4 to Chapter VII, p. 161.

7. Brooks, Fowler D., *The Psychology of Adolescence*, Boston, Houghton Mifflin Company, 1929, Chap. IV. In concluding this chapter on "Mental Development During Adolescence," the author says (p. 83): "We can find little sound evidence that any of the specific capacities are subject to sudden changes in rate of growth; or indeed . . . that the development of one of them is at the expense of some other." From the emotional aspect the conclusions are similar; see Richards, Esther L., *Behavior Aspects of Child Conduct* (New York, The Macmillan Company, 1932) (p. 206), who finds that adolescents rarely become real problems unless they were problem children earlier. Even adolescence is not a separate stage to which peculiar methods are adapted.

8. Dewey, John, "General Principles of Educational Articulation," *School and Society*, March 30, 1929. This article makes a concise and profound analysis of a large problem that comprehends the harmonizing of diverse methods by emphasizing integration and

continuous growth of constant functions like receptivity and assertive activity.

9. Burnham, William H., *The Normal Mind*, New York, D. Appleton-Century Company, 1924, Chap. VIII. In this chapter entitled, "The School Task," the author declares (p. 228) that "freedom to choose one's own task and form one's own plan is necessary in order to develop initiative, personal responsibility and to avoid unfortunate inhibitions. . . . These minimal essential conditions are so simple that teachers and parents alike neglect them." Notice that Burnham does not rely upon mere conditioning but suggests "making" situations in which intellectual conflicts may be resolved through intelligent action. Compare my Chapter I. Richards, Esther L., *op. cit.*, Chap. IV, "School and the Intellectual Misfit," reaches a similar conclusion concerning the importance of an appropriate task (p. 53): "If one were asked the commonest cause of maladjustment among the rank and file of school children I think it would be the discrepancy between child ability and the grade program with which he is struggling." From Richards, Esther L., *Behavior Aspects of Child Conduct*. By permission of The Macmillan Company, Publishers.

10. Rugg, Harold, *Culture and Education in America*, New York, Harcourt, Brace and Company, 1931, p. 230.

11. Lindeman, E. C., *Social Education*, New Republic, 1933. In this book the methods of social education are foreshadowed by means of four key-words: control, flexibility, relation, and participation (p. xiv). A note explains relation and relatedness (p. 98). "The terms 'relation,' 'relationship,' and 'relatedness' when used in this semi-technical manner should, perhaps, be more accurately defined. (a) To relate implies that elements in a given situation are brought within the area of potentially interacting contact; (b) relation assumes that interaction of some sort is in process; (c) relationship implies a more or less static form of relation guided by accepted principles, rules, or laws; (d) relatedness is the qualitative term which implies that the whole procedure of relating is a psychological one at bottom." Lindeman shows how such relatedness may be achieved in the social field. Do we not need to achieve such a psychological process in harmonizing diverse methods?

12. Dewey, John, "The Social-Economic Situation and Education," *The Educational Frontier*, Kilpatrick, W. H., ed., New York, D. Appleton-Century Company, 1933, p. 33. In summing up the discussion, Dewey states (p. 64): "Society, in order to solve its own

problems and remedy its own ills, needs to employ science and technology for social instead of merely private ends. This need for a society in which experimental inquiry and planning for social ends are organically contained is also the need of a new education." The phrase "organically contained" is a harmonizing term bringing particularly problem solving and the contributing skills into a social sharing process. At the same time the social aim of democracy stands out as a unifying purpose.

13. See the section entitled, "School Learning: Incidental or Intentional?" in Chapter IV, p. 87.

14. See Chapter XII.

15. Dewey, John, *Democracy and Education*, New York, The Macmillan Company, 1916, Chap. XIII. In this chapter on "The Nature of Method" the characteristics of good method are set forth. The teacher may find this abstract and general discussion a helpful basis for testing the concrete and specific methods he is using. Does a particular "making activity" promote in the learner "straightforwardness, flexible intellectual interest or open-minded will to learn, integrity of purpose, and acceptance of responsibility for the consequences of one's activity including thought?" The teacher needs to be concerned at all times about the concrete changes occurring in the learner rather than about the methods used in the abstract.

16. See the section entitled, "Reconstruction of Experience Through a Democratic Outlook," in Chapter XVI, p. 360.

17. An emphasis upon "making" would be unfortunate if it led to a neglect of "consumption" experiences. An adjustment in the school and in the world outside between sharing in productive work and sharing in the joys of life is an ever-present problem, which involves a relating of the production and consumption aspects through a sharing of common interests. The economic difficulties involved and the prospects for co-operation are detailed in: Kallen, Horace M., *The Decline and Rise of the Consumer*, New York, D. Appleton-Century Company, 1936. See also Note 10 to my Chapter XIV.

18. See the section entitled, "Harmonizing Conflicting Aspects of Organization." in Chapter IV, p. 90.

PART III

TOWARD A SOCIAL OUTLOOK

CHAPTER XII

Democracy as a Central Aim

Clearness of social outlook is a quality rarely found among teachers, or for that matter among parents and other taxpayers. Few people have an unclouded view of the direction in which they would have society move. Not many individuals have a definite answer for the question, "Whither?", even when it is asked concerning their own community, their own school, or their own life. Two reasons for the prevalent confusion are the multiplicity of our aims and the lack of well-defined outlines for them. Each person has diverse goals in life—health, financial security, social achievement, aesthetic enjoyment, community service; and his ideas about most of them may be vague. The public school faces, in addition, the dissimilar needs of children coming from families of contrasting economic status, political viewpoint, and religious affiliation. Furthermore, numerous powerful organizations outside the school continually press the course of education toward narrow channels in order to promote their own profit-making or reform-producing interests.¹ No wonder, then, that teachers and administrators who try to formulate a definite statement of the school's dominating purpose usually bring from their committee room a list of several vague and conflicting objectives

rather than one unifying, all-embracing aim. Even when a central aim, such as democracy, is chosen, it may still be just a glittering generality. Yet, wise parents and thoughtful teachers will recognize the need for a clear, central purpose in which the chaotic interests of the child and of society may merge harmoniously.

The 1918 Objectives: A Multiple Set Neglecting Conflicts

Take, for example, that most influential study of educational objectives published in 1918 by the Commission on the Reorganization of Secondary Education.² This group drew up the following set of aims:

1. Health.
2. Command of fundamental processes.
3. Worthy home-membership.
4. Vocation.
5. Citizenship.
6. Worthy use of leisure.
7. Ethical character.

It is evident that any such multiple set of aims forces upon the teacher and the school principal the heavy responsibility of deciding how much emphasis to give each objective. In spite of detailed planning in advance, morning after morning the conscientious teacher goes to school in a state of uncertainty. Shall "command of fundamental processes" or "worthy use of leisure" be given more time today? Shall specialized vocational guidance or general training in citizenship be stressed? How shall health and home-membership be related? Intelligent decisions must be made; something more than a vague desire for harmony is necessary. While a broad basis for public education is desirable, each teacher

must achieve a more unified outlook if substantial progress is to occur.

The confusion arising from the conflict of aims has generally been disregarded. In discussing the 1918 set of objectives, one author says it has been "helpful because of its simplicity and intelligibility," and "widely influential in guiding the development of our secondary schools along constructive lines."³ Another writer goes a step further in his approbation to the conclusion, "These seven objectives represent a variety of phases which lead to a unified common goal."⁴ So confident is this author of the essential unity of objectives that he considers it not only safe, but also "necessary to increase the number of objectives" when "conditions become more complex." Consequently, he welcomes Bobbitt's ten general objectives as having "contributed fundamentally," as well as listing the twenty-one aims and functions compiled by Koos.⁵ But can the school continue to accept new aims without limit? Does not each aim added by educational writers make the teacher's problem of clarifying, harmonizing, and unifying more difficult?

The 1929 New York Objectives: Another Multiple Set

In spite of the obvious conflicts arising from the 1918 multiple set of objectives, this formulation continued to be the model followed wherever careful studies were made of the fundamental purposes of education. One outstanding contribution toward this type of orientation in elementary education was made by New York State schoolmen in 1929 under the title, "Cardinal Objectives in Elementary Education." The 200-page report consists in large part of illustrations gathered from classroom teachers of ways and means of attaining the six objectives given below.⁶

It is the function of the public elementary school to help every child:

1. To understand and practice desirable social relationships.
2. To discover and develop his own desirable individual aptitudes.
3. To cultivate the habit of critical thinking.
4. To appreciate and desire worth while activities.
5. To gain command of the common integrating knowledge and skills.
6. To develop a sound body and normal mental attitudes.

In this New York State six-way proposal the preliminary statement about helping every child may seem to unify all the objectives by making them "child-centered." Yet child-centered schools have responsibility for leading every child toward full membership in a complex adult society. So questions arise. Into what kind of society do these aims lead? What does each objective really mean? Before one can be sure that the different aims are harmonized, one must get a clearer view of the direction in which each points.

Vagueness of General Objectives

A common weakness of general statements of educational aims is vagueness. The New York State aims may serve as an illustration. The first objective mentions *desirable* social relationships. But what kind of social relationships are desirable? Fascist Italy would differ from the United States. Communist Russia and Nazi Germany again would differ in their definition of "desirable." When we look further in the report for clarification of the position taken, we find phrases such as "right social relationships" and "right attitudes toward the local, the state, the national and the international good." Think how differently "right" would be interpreted by a Mussolini, a Stalin, a Dewey, and a Gandhi.

The second objective likewise uses the ambiguous adjective "desirable," nor does the further reference to developing the child's ability to express "something of creative ability in himself" enable the teacher to determine which individual aptitudes to encourage. The phrase "worth while" in the fourth objective also leaves the actual choice of activities in the hands of the child and his teacher. The very use of terms like "worth while" and "desirable" indicates that the schoolmen who formulated these objectives realized that these aims needed to be more clearly defined.

In the 1918 multiple set the adjective "worthy" suggests in the third objective the need of determining what kind of home-membership is desirable and in the sixth the necessity of distinguishing between various uses of leisure.⁷ The bulletin elaborates the former "worthy" into "wholesome relations," "right attitude," and "proper management" in the home, while the latter "worthy" is said to result in "enrichment and enlargement of personality." All of which leaves the teacher with little guidance toward a democratic interpretation. The fifth objective, "citizenship," is partially clarified by a discussion of democracy in the school, the community, and the nation, which distinguishes it from the cruder forms of dictatorship that have been associated with the personalities of Mussolini and Hitler. While the choice of "the best inherited conceptions of democracy" is still left open, the pupil is warned that "democracy itself is an ideal to be wrought out by his own and succeeding generations."

Do General Objectives Consistently Foster Democracy?

The suggestion that democracy be emphasized, which is made in both the 1918 and the 1929 proposals, may be used to indicate how equivocal the multiple sets actually are.

Most of the objectives can be interpreted in terms either of an authority-centering autocracy or a responsibility-sharing democracy. One can see easily that a dictatorship, a democracy, and a communistic society might all accept command of fundamental skills and processes, health, and vocational efficiency as essentials of modern life. Likewise, citizenship, ethical character, and worthy use of leisure, while interpreted somewhat differently in each regime, would be retained by all. Instead of worthy home-membership the Russian communists might substitute worthy membership in groups "wider than the family and that cut across its ties."⁸ But even this divergence lacks significance when some American writers are declaring that our own traditional family life is changing rapidly. At any rate it would be difficult to prove that the family throughout its long history has been an especially democratic institution. The point is that not one of the 1918 objectives has any enduring and exclusive connection with democracy. Consequently, this set of aims might lead a society into dictatorship or communism unless the central aim of democracy were used continually to define and clarify education and social action. Or, as is more likely, we may remain in a confused condition, which gives the friends of autocracy opportunity to control political organization and education itself by the use of insidious methods. Something more than a mere description of democratic ideals is required to deliver schools from the wasteful diffusion of activity which has arisen through treating each of the seven cardinal objectives as a separate aim.

Two Ways Schoolmen Treat Objectives

The ambiguous character of the seven objectives has been revealed again in the attempts made by school systems to

apply them. Actual use of the cardinal objectives has produced, at the extremities of the range, two contrasting groups of schoolmen. Administrators in the one group have experienced only confusion and vagueness when they tried to follow these objectives in curriculum building. On the other hand, the members of the second group, while attacking similar problems, have reached decisions without encountering any difficulty in following the same set of aims. Although we are more deeply concerned with the latter group, let us look first through the eyes of the former.

The Way of Ambiguity

Whenever these administrators have tried to reorganize curricula, the vagueness and ambiguities previously mentioned have become painfully apparent. Moreover, these schoolmen have lacked a criterion for adjusting the rival claims of the several objectives. Instead, questions have arisen. How much time shall be devoted to vocational training on the one hand, and to preparation for worthy use of leisure on the other? What relationship shall be established between attaining command of the fundamental processes and developing ethical character? None of the objectives has carried with it any limit to expansion in its particular direction. All seven objectives have encouraged spreading out. But administrators have faced practical limitations in pupil time and in teaching facilities, not to mention the need of providing a well-balanced educational program. In the end these schoolmen have decided that they must rely upon their own practical "common sense," rather than trusting to any light shed by theoretical aims. Consequently, the members of this extreme group have thrown the seven cardinal objectives into the discard, con-

sidering them confusing, vague, and useless. Many schoolmen today avoid discussions of general objectives, whether multiple sets or single-centered aims, for they sincerely believe such conferences are really time-wasting although professionally sanctioned and often glorified by idealists.

The Way of Rationalization

In distinct contrast, the schoolmen at the other end of the range in opinion claim they encountered no difficulty in following the seven objectives. Questions raised by the former group have been solved quickly and confidently by the latter. Why this difference? The reason is presumably that, with these men, the objectives do not serve as guides, but merely as convenient labels for opinions formed in advance. For example, each member of this group had already reached a conclusion in regard to "citizenship"; one might be an advocate of military training in high schools, another might be a believer in the dogmatic instilling of internationalism or of pacifism, a third might present the evidence in favor of economic nationalism, but all would be strong for "citizenship" education. Likewise, three teachers might all accept "ethical character" as an aim, but differ profoundly in the means used and the ends attained, one emphasizing conformity to old standards through the reading of sacred books, a second using a set of activities to correct personal traits one at a time, and a third promoting a socialized program stressing intelligent co-operation.⁹ In other words, each of the seven objectives has been twisted to coincide with the previous practices of these administrators and teachers. Consequently, the members of this group do not find it difficult to believe that these objectives all lead directly toward a unified common goal."

To put it differently, the process by which each member of this group clarified and defined the seven vague objectives was, in all likelihood, a process of *rationalization*. These seven symbols conveniently took on the form of old convictions and present practices. In the experience of these schoolmen the accepted objectives never became aims in a sense that involves moving out toward the new and different. Administrators who have no difficulty in applying the seven objectives are continually reaching their decisions on the basis of certain standards anchored deeply in their own emotional lives. These standards are so well developed and act with such celerity, precision, and strength that they are automatically read directly into the formal objectives. Thus each broad term, such as "worthy use of leisure," may serve as a screen behind which all kinds of undemocratic practices in curriculum building may be concealed. As might be expected, these administrators are aware of no difficulty as long as they can cram all their pet notions into the program under cover of seven fog-like objectives. Moreover, they have the comforting assurance that their work is in accordance with approved scientific procedure and sanctioned by high educational authority. In actual fact, these educators, like those of the former group, who have discarded these objectives altogether, place their reliance not on the objectives, but upon their own opinions and "common sense"; they differ profoundly, however, in that they believe that the objectives are leading them safely on. The first step, then, toward the clarification of aims is for every administrator and teacher to acknowledge to himself the degree to which he has been protecting his pedagogical prejudices by using vague objectives—whether they be the 1918 set of the secondary-education commission, the 1929 statement of

the New York State elementary-education committee, or some other multiple set of aims.

This description of two extreme groups—the discarders of vague objectives and the rationalizers of formal aims—apparently leaves the majority of teachers and administrators free from these dangers. Actually, most schoolmen will find both inclinations within their own breasts. A teacher may disregard vocational training, while he gives the use of leisure a prejudiced twist. Not one of us—not even the wise parent—can avoid these difficulties unless he clarifies his objectives in a positive way.

Constructive Features in the 1918 Proposals

The criticisms made of the 1918 and 1929 multiple sets of objectives might lead to a superficial judgment that these proposals have had a retarding effect upon American education. On the contrary, as Thayer has pointed out, the 1918 report marked a forward step in “its attempt to apply a social philosophy of education” to the public schools.¹⁰ We need to remember that the 1918 report was the direct outgrowth of work begun in 1911 by a committee which urged “the modification of college entrance requirements in order that the secondary school might adapt its work to the varying needs of its pupils without closing to them the possibility of continued education in higher institutions.” This democratic view of education was carried a step further in the 1918 report by the insistence that “the secondary school should admit all pupils who would derive greater benefit from the secondary than from the elementary school.” Furthermore, the report states explicitly: “The purpose of democracy is so to organize society that each member may develop his personality primarily through activities designed

for the well-being of his fellow members and of society as as a whole." Thus, in 1918 democracy was definitely proposed as a central aim for public education from the elementary school to the university.

Limitations of Analysis in Formulating Objectives

Unfortunately, the interpretations made of the cardinal objectives, and certain statements in the report itself, did not support the movement toward fuller democracy. Note, for example, the method which the commission advocated for discovering concretely the desirable objectives.¹¹

In order to determine the main objectives that should guide education in a democracy it is necessary to *analyze* the activities of the individual. Normally he is a member of a family, of a vocational group, and of various civic groups, and by virtue of these relationships he is called upon to engage in activities that enrich the family life, to render important vocational services to his fellows, and to promote the common welfare.

When "analysis" is emphasized, the school accepts too easily a collection of items representative of the present state of society. As Thayer says:

Vocational preparation thus reduces itself to the acquisition of specific abilities of performance. Little or no endeavor is made to lay the basis for vocational choice and vocational preparation by equipping students with a knowledge of fundamental principles and processes that link up a wide variety of practical operations, and the citizenship implications of a vocation are ignored altogether. Health education breaks up into specific groups of habits which learners are to acquire under controlled conditions, and education for citizenship similarly involves inculcating in boys and girls the specific traits which a statistical analysis reveals as the essential characteristic of a good citizen.

As far as objectives are concerned, such an interpretation of analysis leads away from a fruitful, unifying application of democracy toward a mere collection of the numerous and diverse aims occurring in any community. The hope of finding a single, central ideal fades as this kind of analysis is proposed.¹²

Partisanship Underlies Multiple Sets of Aims

It is true, no doubt, that educational programs should be built in the light of intimate knowledge of actual social conditions. For this purpose analysis is commendable and necessary. Analysis of this kind, however, merely furnishes data for intelligent judgment; it does not provide a program. The report fails to make clear the vast difference between securing data and formulating programs. As a matter of fact, it seems probable that the 1918 report represents a compromise among special interests advocating specific forms of education, such as vocational training, health development, and classical culture. In that case the commission is to be congratulated on crowding a multitude of diverse demands into so small a number as seven. But even so, the committee's shift from one objective to seven, instead of resulting from a scientific analysis guided by a democratic hypothesis, involved a surrender to forces which pulled hither and thither. If this was their history, as seems likely, the seven objectives were born in partisanship. Each was sponsored by a group of schoolmen with comparatively narrow interests. The objectives took form in compromises between factions, rather than in agreement of "authorities." Consequently, they are not likely to lead to a "unified common goal" unless they are reinterpreted in the light of a central ideal, such as democracy.

Democracy in the New York State Objectives

The favorable and adverse criticisms made of the 1918 objectives apply in large measure to the similar New York State multiple set of 1929. The later report, however, has distinctive characteristics of its own. The committee demonstrated a democratic method by enlisting the aid of public-school teachers, and pointed out that "every idea expressed in the statement of the six objectives emanated from classroom teachers." As a consequence of this sharing of purposes, the New York State objectives have had a profound influence upon education within the state and perhaps beyond its boundaries. It has stimulated and guided the work of numerous curriculum committees; it has broadened the supervisory programs of the State Department; it has made public-school officials more sensitive to the needs of children; also the publications of the various state associations of principals and teachers and of the State Department upon subjects such as informal teaching and reporting to parents had their sources in large measure in the conferences throughout the state that led to the publication of the objectives report in 1929. Furthermore, the report itself said, "The re-examination of the fundamental principles of our democracy" is considered necessary, although the report assigned this reinterpretation of democracy too narrowly to "the application of the scientific method to education."¹⁸ The introduction of "critical thinking" sounds like a step beyond the 1918 objectives in the direction of democracy. When one looks for a central aim, however, no clear definition of democracy appears. Instead, the committee apparently takes for granted that "ethical character" will constitute the unifying, common goal.

The question most frequently raised is whether "character education" should not be one of the objectives. The committee believes that all six of these objectives contribute to the attainment of character, that to the extent these six objectives are pursued, character will be attained. The more we have considered this issue, the more we believe that the diligent pursuance of these objectives leads not to something new but to what the philosophers have long since termed *The Good Life*.¹⁴

Conflicting Interpretations of "The Good Life"

But have the philosophers of the past agreed concerning the nature of "The Good Life"? Did the Stoics agree with the Epicureans? Were the teachings of Socrates and Jesus identical? Did Francis Bacon, Benedict Spinoza, David Hume, Jean Jacques Rousseau, and Immanuel Kant advocate the same approach to "The Good Life"? Can the age of electricity find its philosophy all matured for it in a medieval walled city or an ancient pastoral tribe? No, each age must create in some degree a new ethics appropriate to changed conditions. The assumption that "The Good Life" has been discovered once for all gives each teacher an opportunity to *rationalize* his old prejudices about what is good for children. "The Good Life" is too vague to serve as a central aim.

What Does Democracy Mean?

The American people have insisted repeatedly that "The Good Life" is the democratic life; the public school has accepted the promotion of democracy as its aim. Yet, the meaning of democracy is by no means clear; too often conflicting views are hidden by the common mouthing of the popular term. In attempting to clarify our own thinking, let us look, first, at a few fundamental facts upon which a

modern concept of democracy may be based. Recent studies in biology indicate that the present wide distribution of general ability will continue; a small percentage of the population will be very dull, a similar percentage will be very bright, and most folks will be ordinary in ability—the well-known mass of the “common people.” In this sense the biological basis is democratic.¹⁵ Modern psychology demonstrates, further, that habit formation, especially in motor skills, reaches high efficiency through promoting adjustive action guided by the individual as he grows rather than stamped upon him in an autocratic way. The reinterpretation of habit emphasizes individual adjustiveness with stability, and requires a degree of freedom for the individual which becomes an aspect of the democratic concept of respect for individuality.¹⁶ Child psychology depicts an infant gradually growing in intelligence through active motor play and then emerging into a more social and more intelligent individual through the use of language. The process of communication, especially the transmission of language from the adult group to the child, might seem to be autocratic; psychology, however, reveals that the sharing of meanings with others becomes the means for individual creative thinking, which is shared in turn with the other members of the group. The fundamental fact is that creative thought and action has a social source but can occur only in the individual who is free from dictatorial restrictions.¹⁷ These scientific findings concerning the biological basis of human nature, the adjustiveness of habits, and the growth of intelligence through clear, sincere communication constitute a substantial foundation for a democratic creed.

Two apparently divergent ideas emerge from a consideration of the facts: The social group must be organized to pro-

mote communication among all its members; the individual must be free to create new thoughts and actions. The key to the adjustment of the social and the individual aspects of democratic life lies in the voluntary sharing of common interests that result in the assumption of *responsibility* by the individual *for* social ends. The changing relation of the growing child to the adult group may illustrate the meaning of shared interests and responsibilities. During infancy the individual child has neither intellectual interest nor responsibility; society, represented by the parents, carries all the responsibility. As the child grows, he is taught in the home and later in the school as well to share in the thought and action of the group according to his abilities.¹⁸ At any time during the process of widening his interests and increasing his responsibilities, society, represented by the political state, may say to the individual or to the mass of the common people, "You may have no wider interests; you may take no more responsibilities." Ancient autocracies and modern dictatorships stop the individual at an early stage in his growth—in the childhood of his social sharing; democracies encourage the continuous growth of the individual toward a wider and wider sharing of interests and thereby of responsibilities.¹⁹ In a democracy the people are willing to experiment continually in the direction of giving the maturing individual a larger share in the common concerns and thus contributing to his personal freedom. The guidance of experimentation in democracy must be judged from time to time in terms of the widening area of common interests shared by the great mass of individuals.

When democracy is interpreted as an ever-widening sharing of common purposes and responsibilities, the meaning

may be clarified by turning toward the methods involved in the application of this creed. Since social responsibility must be learned, the public school becomes an important agency in teaching each child how to carry his growing share. He must acquire ability to work effectively as well as willingness to assume responsibility. Since individuals differ in both general and special abilities, the degree and kind of responsibility each will take as an adult differs. Wise guidance and careful selection of activities are necessary. Fortunately, specialization of work may promote greater production of cultural resources without necessarily interfering with the participation of the specialist in the general evaluation of the social results attained. In other words, each individual in a democracy needs to be an intelligent producer and at the same time a judge of the social significance of his own work and that of others. Since the fullest growth of all individuals is the inclusive aim of democracy, the widest possible sharing in the use or consumption of resources produced becomes essential. In the growth of each individual a liberal sharing in economic and educational resources is the means by which he comes to share more widely in the common purposes.²⁰ At the same time production and consumption need to be adjusted in such a way that the members of each succeeding generation may share a little more fully with each other than did their predecessors. In the clarification of this democratic creed and in the discovery of methods thereto, the public school functions as an experimental social laboratory. Although the school cannot in itself produce a new democracy, it can contribute in that direction mainly through a continuous study of the meaning of sharing, in theory and practice.

Clarification by Defining Democracy

Democracy is not a simple concept; a democratic social organization is extremely complex. Consequently, the support given to democracy in America is sometimes confused and therefore weak. Nevertheless, the vitality of the democratic spirit permeates strongly the thinking and action of many citizens. Without the support of our democratic tradition there could be little hope for a fuller democracy.²¹ Some of us need, however, to reorganize our present attitudes and ideals into a more definite program of democratic living. While one may not be able to analyze his concept of democracy in complete detail, an attempt to put it into words may aid the student, teacher, or parent in organizing his own thinking. Let us reiterate our statement: *Democracy implies that the social organization aims to widen continually the area of common interests shared by all the members of the group.* If we take a tentative definition of this sort, and use it, education may acquire a keener sense of direction. Reorganization may occur through this central motive. Conflicts between the old objectives may be referred to this unitary criterion. "Vocational training" in the 1918 multiple set may be adjusted with "worthy use of leisure" by answering the question, "Which of the programs proposed in the case of this particular school or pupil is the most promising for the increased widening of shared interests among all the members of the group?" The use of one concept will thus place limitations on each objective. None will be pursued to the detriment of some other phase that promises greater return in the ultimate sharing of interests. The attainment of New York's "command of the common integrating knowledge and skills" will not be emphasized at the sacri-

fice of practice in social relationships that leads to unselfish attitudes. For example, a group of fourth-graders who cooperate in the management of the school store for the benefit of all the pupils develop different social attitudes from the fourth-graders in another school who compete for marks and prizes in timed tests. In the former case, a unifying aim leads to methods that promote the creation of ethical attitudes while gaining speed and accuracy in fundamental skills. "Ethical character" and "The Good Life" are being redefined in accordance with a particular interpretation of democracy. Thus, democracy, or some other single concept, may confer unity on school activities by providing a central standard of interpretation. Holding to a single purpose, even though complex and tentative, gives opportunity for clarification, and may promote progressive unity in the program of public education.²²

Whenever "democracy" is accepted as the predominant aim, it comes first, of course, and other objectives take a secondary position. They become means to an end. This way of building an educational program reverses the procedure of the 1918 Cardinal Principles, in which the seven objectives occupy the foreground, and are assumed to explain democracy. The inevitable result which follows from giving precedence to a set of diverse objectives is that the more fundamental social concepts, like democracy, lose their vital significance. A writer on secondary education, for example, treats democracy in a way which seems to be the obvious consequence of relying on a multiple list of objectives. After reducing the results of his survey to four broad aims, he has given democracy a subservient position among his six functions. At the same time, he has taken most of the social value out of the concept when he says, "Achieving a demo-

cratic secondary education signifies, in the minds of those who posit it, bringing within the influence of the modern high school, as far as possible, 'all the children of all the people.'"²³ May not a modern dictatorship, as well as a democracy, extend the training period of its "subjects" in order to make them more efficient "producers" or more ardent "supporters"? The author still seems to neglect the deeper meanings of democracy when he discusses the junior high school. He states that a democratic school system is realized through "(a) retention of pupils, (b) economy of time, (c) recognition of individual differences, (d) exploration and guidance, (e) provision of the beginnings of vocational education."²⁴ Democracy described thus means a businesslike educational "service" emphasizing differentiation of activities, but implying no necessity of liberal sharing. An efficient autocracy might welcome every item from (a) to (e). But when democracy is made the dominant aim, it can retain its richness as a social motive, and it can impart its spirit to other lesser objectives. Six, seven, ten, or twenty objectives may then be used safely, for their consideration enriches the central aim, and at the same time these subsidiary aims may be redefined and unified. Multiplicity of aims without central guidance has proved to be a dangerous device, interfering as it does with the search for the real meaning of democratic education.

Redefinition of Aims Through Use

Taking a particular definition of democracy as a guide is, of course, only a first step in the clarification of aim and the development of a unified program. No doubt, all will agree that any crude statement, which we may accept tentatively as a means of unifying our thought and action, must ulti-

mately be modified and enriched. This reinterpretation is exactly what should and will occur whenever a schoolman actually uses democracy, or any other definite creed, in this way. Definition always moves with *use*; concepts are tested by trial.²⁵ The baby learns the meaning of "ball" by playing with it; the schoolboy gets the "sense" of a mathematical rule by applying it in specific problems; and the beginning teacher comes to appreciate the value of old educational maxims through trying them. It may be inferred, therefore, that with the frequent use of democracy as a central criterion, the idea will grow gradually into a more definite concept.

As this concept is applied in the concrete problems of the school, these practical affairs are caught up in the process. They, too, become more clearly defined and more meaningful. And in between the central aim and the specific change will be found the six, seven, or twenty objectives. These aims also will be used more freely than was possible in their old compartmental confinement. Clarification and unification of the whole movement will occur at the same time. We will find, as Bode remarks, that the "concept of democracy involves a program of living."²⁶ So, through the use of a central aim, a concrete, but ever-changing, program of education may emerge out of vagueness.²⁷

While "democracy" may not be the only symbol around which a unified program of education may be built, there are sound reasons for using it today. Unfortunately, the opponents of democracy throughout the world appear to be much clearer concerning their objective—be it fascism or communism—than are most laymen and schoolmen who lean toward democracy. Consequently, the preservation and promotion of democracy in the United States depends in large measure upon what youth learns about the demo-

cratic way of life in the public schools. Unless the American people, young and old, come to understand more clearly the principle of shared interests, democracy will go down before the attack of less desirable, but more exactly defined, forms of social organization. Furthermore, democracy contains within itself the opportunity for continued readjustment as the area of common interests widens. Democracy does not set a static goal; it presents a dynamic principle of continuous growth for the individual and the whole social group through the creation of new purposes and the continued increase in common concerns that reach beyond all past attainments. In addition, an application of democracy will unify the school world of youth and the business world of adulthood in a way of life organized to promote human freedom. The unhealthy contrast between the irresponsibilities of childhood and the worries of adulthood will be resolved into a responsible security achieved through the gradual widening of common interests. As more Americans grasp the fact that democracy is not merely a liberal method but a definite social creed, the emotive force of the clarified term may lead many into the strenuous social action so sorely needed.²⁸ The present influence of democracy upon life in school and out gives hope for the future.

Shared Responsibility for Interpreting Democracy

Seeking the fuller meaning of democracy is a responsibility which should be shared by all teachers. Yet some writers, while they recognize the need for a single guiding principle or underlying philosophy in the selection of curriculum activities, assume that this central aim should be found by a kind of "analysis," which apparently relieves the ordinary classroom teacher of his due share of responsibility.

Such writers fall back on the "composite judgment of our outstanding authorities,"²⁹ as found by Rugg in an analysis of the writings of "frontier thinkers." This procedure interferes in two ways with the growth of democracy in education. A "composite view" of the kind suggested by these authors is apt to be a collection of diverse concepts lacking in unity. The origin of "composite views" resembles too closely that of the "seven cardinal objectives." In the second place, this kind of "analysis" assumes that it is "best" for most teachers and administrators to "accept" their social outlook from expert authorities. While a variety of educational programs and of social ideals forms an essential stimulus for the creation of one's own way of life, these suggestions must be tried out, not swallowed whole. Everyone, from the philosopher who specializes in finding the meaning of life and education, to the public-school pupil who is daily acquiring democratic or undemocratic attitudes, should be encouraged to share in answering the question, "Whither?" But the great need is that those writers who discuss the aims of education should point out clearly to teachers the dangers which lie in depending upon a multiple set of diverse objectives and ill-defined general terms. Striving to "explore the inner meaning of the great democratic movement" is a more promising application of the "Cardinal Principles" than is a continued reliance on a set of vague objectives.³⁰

NOTES

1. Raup, Bruce, *Education and the Organized Interests in America*, New York, G. P. Putnam's Sons, 1936, Chap. I. This book discusses certain profit-making and reform-promoting organizations in their relations with the public schools. Chapter I introduces the student to the problem by pointing out the underlying

meaning of education as a concern with the direction which culture is taking under the influence of organized interests.

2. U. S. Bureau of Education, *Bulletin*, 1918, No. 35, pp. 10f. The Reviewing Committee of the Commission consisted of 26 members, of whom 16 were chairmen of committees representing various aspects of education, such as agriculture, art, articulation of high school and college, business education, and classical language; while the remaining 10 were members-at-large. All sections of the United States were represented in the personnel of the committee.

3. Koos, Leonard V., *The American Secondary School*, Boston, Ginn and Company, 1927, pp. 150f.

4. Clement, John A., *Principles and Practices of Secondary Education*, New York, D. Appleton-Century Company, 1925, p. 239.

5. *Ibid.*, pp. 307, 318, 320.

6. Committee on Elementary Education of the New York Council of Superintendents, *Cardinal Objectives in Elementary Education*, Albany, The University of the State of New York, October 1, 1929. The committee personnel for this second report included: Wilbur H. Lynch, *Chairman*, Alexander W. Miller, J. Cayce Morrison, W. H. Pillsbury, George R. Staley, and A. J. Stoddard.

7. Skipper, James K., "What Price Leisure?" *Educational Administration and Supervision*, April, 1936, pp. 285-288. The author points out that "the causes of unworthy use of leisure time reside in our social mechanism," that "the social mechanism is integrated," and consequently "in order to remedy particular ills education must aim at a fundamental re-organization of society in terms of a consistent social program"—a democratic sharing of purposes.

8. Dewey, John, "What Are the Russian Schools Doing?" *Characters and Events*, New York, Henry Holt and Company, 1929, Vol. I, p. 409. (This article is reprinted from *The New Republic*, December 5, 1928.)

9. See Chapter VI.

10. Thayer, V. T., "The Report of the Commission on the Reorganization of Secondary Education," *The Clearing House*, September, 1932, p. 49. The article begins with a warning concerning the criticism of formulations which constituted forward steps at the time they were written. "A document such as the Report of the Commission on the Reorganization of Secondary Education lends itself to at least two methods of interpretation. We may read it with a literal mind and appraise it solely in terms of its practical value today for a program of secondary education, or we may examine it

in the light of trends in American life and American education of which it was but one concrete expression. These two methods are by no means mutually exclusive, but the first leads to superficial judgments unless supplemented by the second." The student of education needs a historical appreciation of the steps taken in the past that he may take further steps with wisdom in the present.

11. U. S. Bureau of Education, *op. cit.*, pp. 9f. (Italics not in the original.)

12. Bode, *Modern Educational Theories*, New York, The Macmillan Company, 1927, Chaps. IV and V. Chapter IV, "Curriculum Making and Consensus of Opinion," reaches the conclusion that "the appeal to the social environment for educational objectives must have back of it a social program or philosophy" (p. 91). Chapter V, "Curriculum Making and the Method of Job Analysis," makes clear that "curriculum construction involves a large question of direction or purpose which our zeal for activity analysis is disposed to overlook" (p. 118).

13. For a consideration of the distinction between scientific method and democracy see Chapter XIV, the section entitled, "Diverse Origins of Experimentation and Democracy," p. 306.

14. Committee on Elementary Education, *op. cit.*, p. 13.

15. See Chapter VII, the section entitled, "Modern Biology Frees Human Nature," p. 157; also Chapter VIII, the section entitled, "Does Democracy Maintain the Normal Distribution?" p. 173.

16. See Chapter V, the section entitled, "Constructive Habit: a Stabilizing Factor for Democracy," p. 114.

17. See Chapter VIII, the section entitled, "Individual Intelligence and Social Democracy," p. 181.

18. See Chapter I, the section entitled, "Early Clarification for Democracy's Responsibilities," p. 14.

19. See Chapter II, the sections entitled, "The Democratic Ideal and Informality," p. 38, and "Opposition to Informality," p. 39.

20. See Chapter III, the section entitled, "The Meaning of Democracy—So Far," p. 70.

21. Educational Policies Commission of the Department of Superintendence, *The Unique Function of Education in American Democracy*, Washington, National Education Association, 1937. The democratic tradition is traced through its historic vicissitudes in the United States and the present obligations of educational leadership are vigorously stated. Does the point of view presented by the commission reinforce the widened sharing of common interests?

22. Commission on Secondary School Curriculum of the Progressive Education Association, *Science in General Education*, New York, D. Appleton-Century Company, 1938, pp. 32-41. In this volume, which is the report of the Committee on the Function of Science in General Education, the statement on "The Major Ideals of Democracy" emphasizes three aspects of democracy: first, optimum development of personalities; second, reciprocal individual and group responsibility for promoting common concerns; and third, the free play of intelligence. Such a threefold definition differs from the concentration in the present book upon "the continual widening of the area of interests shared," which may seem to correspond only to the committee's second aspect and ideal. As illustrated in every chapter, however, the sharing of interests constitutes a social situation in which intelligence has free play and in which optimum development of individual personalities is promoted. It is essential that the *relationships* of the individual as an appreciative experiencer of social life and as a constructive, communicative thinker in society should be considered whenever democracy is used as a central aim. The teacher must be sensitive to dangers that come from the segregation in use of any one of the three aspects differentiated. Respect for human personality or human worth may be derived from unscientific accounts of human origins and may lead to an interpretation of "human rights" that results in a wasteful individualism injurious to the lives of others. The segregation of free intelligence as a separate ideal, may lead to scientific methods and experiments that ignore social goals. When the single aim of sharing common interests is made central, the uniqueness of the individual is endangered by the possible interpretation that he must accept the interests already set up by the group as a whole, as in a totalitarian state, and, consequently, intelligence is also narrowed to the ideas accepted by the majority under a restricting leadership. The teacher who has considered carefully and applied thoughtfully either a single or a threefold definition of democracy will be safeguarded from the limitations inherent in any written explanation of this complex concept.

In the writer's opinion, a more adequate procedure in connection with either approach is to demonstrate, in so far as scientific studies make possible, the fact that individual intelligence and uniqueness arise in the development of the human race through social participation or the widened sharing of common interests, and that each child acquires individuality by a similar process of coming to share the ideas and interests of his community. The rise of the race into in-

telligent individuality eventuates in ideals of social conduct that constitute the so-called "worth" of each human being. Worth is not inherent nor are rights natural; both are consequences of social participation, although some persons *can* enter more fully into social participation because of the high quality of their physiological equipment. Through an understanding of the *relations* between social sharing, human worth, and intelligence, the educator may envision more clearly and promote more wisely that form of social organization called *democracy*. When comprehended in this way, democracy will strengthen the social process by a concentration upon the continual widening of the area of common interests shared, so that each member of the community may more freely achieve those aesthetic, intellectual, and moral qualities by which his own life and that of his fellowmen may be enhanced and a continual re-evaluation of the democratic way of life be insured.

For a related statement of the threefold definition of democracy by a member of the committee, see: Alberty, H. B., "A Philosophy of General Education with Some Implications for Science Teaching in the Secondary School," *Educational Method*, May, 1937, pp. 387-394. See also my Chapter VIII, especially the section entitled, "Creative Intelligence and the Language Tool," p. 171; also Note 10 to Chapter XIV, p. 322.

23. Koos, *op. cit.*, p. 157.

24. *Ibid.*, p. 221.

25. See Chapter IX, the section entitled, "Concepts Not Tested Merely by Analysis," p. 198.

26. Bode, *Modern Educational Theories*, *sup. cit.*, p. 346. In Chapter XV, "Scientific Method and Educational Theory," from which the quotation is taken, the author shows how the utilization of scientific method for social purposes has been limited by "the failure to appreciate the need of a guiding philosophy. . . . We have not been sufficiently concerned to emphasize the fact that a democracy needs a distinctive type of education" (p. 347). From Bode, Boyd H., *Modern Educational Theories*. By permission of The Macmillan Company, Publishers.

27. Dewey, *Democracy and Education*, Chap. VII. In summarizing this chapter entitled, "The Democratic Conception in Education," the author writes: "A society which makes provision for participation in its good of all its members on equal terms and which secures flexible readjustment of its institutions through interaction of the different forms of associated life is in so far democratic. Such a so-

ciety must have a type of education that gives individuals a personal interest in social relationships and control, and the habits of mind which secure social changes without introducing disorder" (p. 115). From Dewey, John, *Democracy and Education*. By permission of The Macmillan Company, Publishers. New York, 1916.

28. Smith, T. V., *The American Philosophy of Equality*, Chicago, The University of Chicago Press, 1927, p. 225. In this section of Chapter VI, "The Functional Interpretation of Equality," the author says that the American people "are not willing to give up a shibboleth that has been as effective in action as has equality. Regardless of its factual accuracy, we know that emblazoned on democratic banners it has been one of those electric words that have challenged the indifferent, awakened the neutral, inflamed the zealous." The book makes a distinct contribution toward adjusting the conflict between the scientific fact of individual differences and the social, democratic ideal of democracy. For the danger in abstract emotive terms see Note 14 to my Chapter VI, p. 139, and in Chapter VIII, the section entitled, "Are Words Emotional Stimuli or Intellectual Symbols?" p. 178.

29. Monroe, Walter S., and Weber, Oscar F., *The High School*, Garden City, N. Y., Doubleday, Doran and Company, 1928, p. 157.

30. Laski, Harold J., "Democracy," *Encyclopedia of the Social Sciences*, New York, The Macmillan Company, 1937, Vol. V, pp. 76-84. The article summarizes the political, economic, and social interpretations of democracy from their beginnings in the Athenian city-state to the present. The cross references to other articles in the encyclopedia and the bibliography at the end of the article will aid the student who wishes to trace the history of democracy or to go more deeply into the modern concept. This encyclopedia will prove a helpful tool for the serious student in digging into other aspects of educational theory.

CHAPTER XIII.

Modern Curriculum Revision

One way of changing a public-school or college curriculum is to rebuild it completely, the program being determined commonly by the authorities at the top of the system; this method is autocratic. The contrasting approach promotes growth and change in every part of the curriculum and encourages participation in the process by pupils, parents, and classroom instructors, as well as by principals, superintendents, college presidents, and state commissioners of education; this way is democratic. A consideration of these two ways will illustrate the difference between the application and the neglect of democracy as a central aim; in addition, this use of democracy may clarify its meaning.¹

Although the modern educator speaks of "curriculum building" without malice aforethought, the word "building" suggests strongly the house-wrecking type of reconstruction which in recent years has demolished many courses in public schools and colleges. Following the demands of a stringent scientific method, or at times of a radical or a reactionary social outlook, the old curriculum structures have been razed. Often their very foundations have been torn out as if by dynamite and monstrous excavation shovels. The yawning gaps have been quickly filled with structural materials from the statistical scientist's surveys and job analyses

or from the narrowly selected facts and propaganda of an extremist group—Left or Right. In contrast to such sudden and sweeping reconstruction many educational leaders are now urging that every curriculum be treated more like a living, growing organism. Let us explore the implications which lie in a fuller recognition of “growing” as a way for curriculum change.

Final Building or Continuous Growth of Curricula?

During a conference of teacher-trainers, a request came from an official source that the conference “concentrate upon the completion of syllabi revision.” Some instructors misinterpreted this request to mean a final finishing of the project. In opposition to this notion, several conference speakers vigorously declared that curriculum development was a continuous process which should “never be finished.” This protest was based directly upon five years of practical experience in the co-operative reconstruction of courses. During that period these teacher-trainers had raised experimentation in curriculum revision from the status of a temporary expedient to that of a permanent program. This new attitude was based upon a deepened appreciation of those social changes which necessitate a never-ending modification in the education of teachers who prepare youth to meet the vicissitudes of swirling civilization. Instead of being satisfied with a biennial exchange of views, the conference committee laid plans for continuous year-round work in course improvement. The decisive turn of this conference away from the tower-competition notion of curriculum building is just one example of a nation-wide search for new methods of revision which will find their analogies in ever-towering pines or still more fittingly in the adjustive social growth of

children. Democracy involves a willingness to experiment and to grow by gradual change.

Teacher Responsibility Toward Student Growth

At the very beginning, the leader who is applying the growth concept must recognize that the course which he plans to modify is a unique, living organism. Whatever life it has is the outcome of its past growth and present functioning and must be nurtured. If decaying tissues require the surgeon's knife, he must not forget that the prime objective is protection and nourishment. Even if a course appears "dead," skillful stimulation may revive it. Location of growing points is the preliminary step in a nurture program.

As a part of the building procedure, administrators and supervisors have sometimes instituted drastic curriculum changes without welcoming the full participation of the teachers whose courses were being revised. The growth idea gives to the teacher under whom the course has grown to be what it is the first opportunity and responsibility for locating living tissues. Even if the supervisor suspects that a course is in the last stages of decline, he may well remember that it still serves as a laboratory specimen upon which the teacher may learn, under the supervisor's guidance, to discriminate between decaying tissues and growing points. Many a curriculum-revision project has produced superficial alterations only, because the teachers involved remained devoted to decadent methods and ideals. In a growing curriculum the teacher as well as the course must undergo educative change.

The application of this method of revision may be illustrated by a request which the writer sent to the instructor

teaching "Principles of Education" in each of the ten teacher-training institutions of his state.

State the five "principles" which you consider most important to develop in the Principles of Education course.

Each principle should involve a contrast with the attitude of the "average" student, that is, the principle is selected because it represents a *change* in attitude greatly needed by our students.

The form of statement suggested is a *pair* of complete sentences for each of the five principles:

- a. The first sentence to state the common or average student attitude which is to be modified or eliminated.
- b. The second sentence to be a statement of the attitude or view which the instructor wishes the student to consider or acquire.

This request challenges each instructor to take a fresh and honest look at the fundamental purposes and accomplishments of his own course. The challenger hopes that the instructor's search for centers of vitality may arouse some doubt concerning the actual vigor of other parts of the course. Whenever such doubts are felt, nurture and growth are likely to occur at the hands of the instructor himself.

The suggestion that each of the five principles be set forth as a distinct contrast to a prevalent student attitude is based upon the belief that the vigor of any course is best measured by the kind of changes which it produces in those who pursue it. A growing course keeps very close to student attitudes and adjusts itself skillfully to meet shifts in student viewpoint. In practice the instructor faces two questions: What attitudes do my students hold toward the crucial issues of education upon entering the course? To what extent does genuine modification of these attitudes occur during the course? The instructor's attempt to locate a few

growing points in the students may lead him to a severe pruning of his course.

Teachers Lack Knowledge of Vital Student Attitudes

The replies which have come in response to this challenge indicate too much "building," founded upon general surveys of educational conditions, and too little "growing" rooted in intimate appreciation of student attitudes. One man writes:

I have not found it possible to study the average student attitudes which should form the basis for principles of education. I am not sure that such attitudes are present and, if they are, I am not sure that I know what they are.

Such a frank confession of ignorance concerning student attitudes may become an opening wedge for inquiry, and yet, whenever an instructor assumes that his students do not have attitudes of their own, he has raised, quite unnecessarily, a barrier against growth. Skepticism concerning the presence of attitudes probably arises out of a failure to distinguish between lack of information and absence of attitudes. For example, a principles student who has never considered definitely the aims of education cannot give a list of elementary- or secondary-school objectives. Nevertheless, he may regard schooling as primarily a fact-gathering and skill-acquiring process. This student attitude has a direct bearing upon the work of the principles instructor if the latter believes that reflective thinking and character development are the chief essentials. Students certainly have significant attitudes even when they lack information, but too often each instructor must honestly confess, "I am not sure that I know what they are."

A still fuller confession comes from a substantial, progressive principles instructor in an adjoining state:

No, we do nothing to find the attitudes of our students. We just "fire away" and hope for the "best"—and always about this stage of the term (near the close) I have serious misgivings about the "best" which we get.

While neither of these two candid confessions do justice to the actual knowledge which these able instructors possess concerning student attitudes, they do raise disturbing questions. Why do teachers who feel the urgent need still hesitate to investigate student attitudes? How can supervisors encourage this investigation which is so essential in curriculum development?

A Teacher's Fears Block His Study of Attitudes

High standards of scientific accuracy in connection with investigations, which are often emphasized by administrators and supervisors, frighten the teacher who might otherwise investigate student attitudes. Every teacher who has ventured into this ill-mapped field knows the difficulties involved in discovering how students feel about essentials. Under the pernicious influence of a marking system the students conceal their attitudes and give only "what is wanted," that is, what they guess is wanted.² Many teachers and supervisors have concluded that attitudes cannot be measured. Other schoolmen, who have greater confidence in the eventual measurement of subjective conditions by objective means, refuse to attack the problem of student attitudes because of the immense labor involved in the construc-

tion of reliable scientific instruments. So, between our distrust of attitude measurement and our scientific abhorrence of crude instruments, most teachers still resemble those principles instructors who "fire away" and "hope" that the average student will be converted into an ideal teacher filled with progressive or sensible attitudes like those of his instructor.

While it is neither valid nor helpful to be too condemnatory of the useful "building" idea, the contrast may be pushed a bit further to note other dangers involved in this autocratic trend. An emphasis upon accuracy in measurement appears to be associated more closely with building construction than with vital growth. As the supervisor is guided more and more by the idea of "growing," he will forego for a time the fear-inspiring stress on accuracy and will encourage his teachers to make tentative estimates of student attitudes. Even guessing may stimulate growth. This growth is most likely to occur when the "guesses" are made starting points for investigations which are safeguarded by healthy skepticism and careful interpretation.

A Danger in "Consensus of Opinion"

The principles instructors who have courageously set down five crucial attitudes have taken a first step toward a more thorough understanding of student problems. The supervisor who has secured such action is leading into effective revision. After the sets of issues have been compiled so that each principles instructor can see what his colleagues have submitted, the difference of opinion shown constitutes a challenge to further study. A danger arises at this point from the too prevalent custom among schoolmen of accept-

ing the majority "consensus of opinion" and disregarding the diverse proposals of minorities. Democracy involves a respectful consideration of minority opinion. If, without further investigation, an instructor accepts as the actual student attitudes those viewpoints which the majority of the instructors include in their list, he may block the growth of his course. The majority of instructors may be running blindly in the same well-worn rut. Instead of casting aside an exceptional proposal, the instructor and the supervisor may well treat it as an additional suggestion worthy of investigation. Such co-operation by several instructors provides a partial escape from the autocratic narrowness involved when either a single instructor or the mere majority opinion determines the content of a course.⁸

A Simple Inquiry Reveals Diversity Among Students

The value of preliminary statements of student attitudes made by instructors lies largely in their use as broad hypotheses to guide inquiry rather than in their acceptance as the fixed focal points of a new course. Nor need this inquiry be made a mountainous task which will block all progress. Instead of requiring the construction of a complicated instrument, which the "building" concept of curriculum revision might demand, the supervisor may show his teachers how the use of a few simple, direct questions will carry them a bit closer to their students' attitudes. For example, a study of the several sets of issues proposed for the principles course impelled the writer to submit four questions to a group of his freshmen students. Notice that the student participation and the assurances given as introduction to the questions are further steps suggested by the central aim—democracy.

Your answers to these questions will not be used for increasing or decreasing your grade in any course. Your answers will help the faculty decide what problems should be considered in certain courses. Please base your answers on your general experience, including that as a pupil in elementary school and in high school. State what you honestly feel and think rather than what someone else has told you. Five minutes will be allowed for answering each question. Write fully enough to explain clearly what you mean. Copy each question as it is dictated and immediately write your answer.

1. What do you think are the chief changes that the elementary school should produce in children? Indicate which of the changes you consider more important and which are less important.

2. Describe a method of teaching which you think is well adapted to the elementary school. In contrast, describe some other method of teaching which is not so desirable.

3. What methods do you think an elementary-school teacher should use to maintain order in the classroom? In your statement compare the better with the poorer methods.

4. What do you think are the chief changes which should occur in yourself during your teacher-training course in order to make you an efficient elementary-school teacher? Indicate which of those mentioned are most important.

The tentative conclusions drawn from the answers of thirty-seven students who had attended the teacher-training institution for twelve weeks illustrate the kind of aid which such a simple inquiry may give.

Wide variation in ideas and attitudes is clearly indicated by the answers. According to one student the most important change to produce in children is "prompt obedience," another places "sportsmanship" foremost, while a third centers upon "individual systematic thinking." In discussing methods of teaching, the emphasis varies from frequent testing upon textbook and teacher statements to

independent discovery under guidance. Classroom order is to be maintained "by strict and vigorous show of authority" or "by giving pupils responsibility" or "by making the work interesting." The chief changes which these prospective teachers list as needed in themselves expose the ever-present contrast between "more knowledge of subject matter" and "a deeper understanding of children." Each of the thirty-seven sets of answers reveals a different point of view. Although rough classifications might be made into strong and weak, progressive and antiquated, sensible and extreme, it would not be possible to group the statements satisfactorily for accurate statistical summarization. Individual differences of a qualitative rather than of a quantitative sort characterize this conglomerate.

Problem or Growth Areas Found: Not Average Attitudes

What can the investigator make out of this hodgepodge?

In the first place, the wide variation indicates reliability. At least, if we had secured a high degree of uniformity, it would have been difficult to refute the criticism that the students had discovered "what was wanted" and furnished it without revealing their actual attitudes. All statistical studies of school groups show that individual differences are great. All our knowledge of varied student backgrounds would lead us to expect much variation in viewpoint. Although no one dares say that these answers accurately reveal genuine student attitudes, the individuality shown is more reassuring than uniformity would have been.

Second, the range in statement indicates the absence of any typical, common, or average student attitude. On any point, such as method of discipline, some students apparently have a modern attitude acceptable to the instructor,

while others appear like benighted heathen sadly in need of conversion. The majority present a curious mixture which might be taken as the "average," if there were sufficient similarity to make a brief summary of their views possible. But the individual differences of opinion are too pronounced. We cannot average these unique combinations including the conflicting views of many individuals, and even if we could reduce them in part to statistical lists, we should still find our students occupying different positions on a long scale rather than grouped closely around a median point. Attempts to summarize these student answers expose *areas* of difficulty rather than "average" or "common" student attitudes. Hence, instead of confining our conclusions to five concise statements of undesirable student attitudes, we might better attempt to define five *areas* of conflicting student opinion within which growth should be encouraged. While we still maintain our thesis that the growth of the student is the life of the course, each "area" of growth is now seen to include many growing points; further, each individual student may have his own particular growing points within this common area. A simple inquiry may reveal vital, problematic areas in which student growth will go forward. Students and instructor may begin a joint search for a more adequate understanding without waiting months or years upon a meticulous investigation.

Building Comprehensive Examinations Out of Items

Compare this procedure with a proposal in course revision which seems closely allied to the "building" concept, and consider the degree of democracy inherent in each method. The statement below emphasizes certain "items" in the state

syllabus which are to be "mastered" rather than areas in which more or less growth is to occur.⁴

I. Previous to the beginning of any semester, take the course of study, underline in black and number consecutively all items that seem to each instructor to be truly fundamental and therefore of primary importance. Add any items that should appear but have been omitted.

II. Indicate by writing in the date, when the class has mastered each underlined item.⁵

While this procedure stimulates more definite consideration of certain achievements in a course, it may center attention on those items whose mastery can be measured readily. Consequently, those attitudes which are not so tangible run the danger of neglect. This device may make a valuable contribution under the guidance of a supervisor who recognizes its limitations. Yet the worthy aims proposed in the article quoted, namely, to get away from "piecemeal procedures" and to produce syllabi which are "always incomplete and active," can scarcely be attained unless broad attitudes or areas of growth are emphasized.

In the present case the stress upon mastery of items is an outcome of the attempt to devise "a method of approaching the construction of the comprehensive examination." The dangers inherent in the itemized comprehensive examination are illuminated by the consideration of the following quotation from another article:

In some fields the course of study did not have a common content throughout the various junior colleges. This fact made it difficult to construct in some fields examinations which would be acceptable to all the junior colleges. In the field of English,

however, there seemed to be a fairly common agreement as to the course of study. This is due partly to the *dominance* which higher institutions have over the course of study in junior colleges.⁶

Here the building of a satisfactory comprehensive examination covering the content items seems to depend for success upon "domination" by some "outsider." Those leaders who wish to stimulate growth from the inside must beware lest the comprehensive examination itself becomes a restrictive agency resembling a dominating outsider. Although itemized facts are essential in the development of attitudes, one set of facts may be more useful in one class while in another class a different set of facts may prove a better stimulus for growth in the same attitude area. Whatever degree of similarity is desirable among the courses of affiliated institutions should arise out of the common understandings among the instructors concerning the chief attitudes to be developed or the crucial conflicts to be discussed rather than be based upon a uniform list of information items dominated by a comprehensive state examination.

Do Examinations Retard or Promote Educational Aims?

Furthermore, the testing of students by information items has a subtle but deep and dangerous effect upon student attitudes. The tone of any course either in the public schools or in the colleges is determined in large measure by the nature of the examinations given. When students meet questions on information items especially in the raw, short-answer form of true-false, multiple-choice, completion, or matching tests, they tend to memorize textbooks and lecture notes in their studying. Although the instructor may urge

upon his students the attitudes of independent thinking and careful reasoning, they will take their cue from his tests and remain mainly memorizers. The instructor's autocratic procedure of testing for a fixed list of simple items will not produce in students the democratic attitude of individual responsibility in reaching conclusions. The item-mastery method becomes most harmful when it is applied as an important comprehensive examination at the end of a four-year course with the elimination of weak students as a prime purpose. Instead of raising the standards of student workmanship, the opposite result is apt to follow. The seniors, who take the examination, will impart its character to the underclassmen, whereupon many of the students will relapse easily into memorizing, and rely on "cramming" rather than organize their experiences in broad units of understanding.⁷

On the other hand, everyone recognizes the importance of measuring a student's knowledge and ability before admitting him to a college or certificating him for public-school teaching. A comprehensive examination may well serve as one measure of a student's ability to teach. The evidence indicates, further, that information and liberal attitudes are correlated. For example, a recent study of public-school teachers found a correlation of .41 between liberal social attitudes and the score on a "public problems" information test.⁸ So the instructor who accepts responsibility for modifying attitudes will use methods which involve the acquisition of information with understanding. Knowledge may be tested, however, without falling into the dangers that go with item listing. Broad essay-type questions may be devised which will require informational background and at the same time emphasize for the students the need of

independent interpretation and the ability to relate pertinent facts to each other and apply them to practical situations. Short-answer tests may also be designed which will test information in a setting that encourages reasoning rather than mere information collecting, but great care is necessary in their preparation and use.⁹ The point is that tests and examinations need to be revised in the light of a democratic aim, for the methods of testing have long been controlled by an autocratic, hierarchial education system. The changing of a curriculum by the growth method involves a change in examinations which is radically different from changes made under the influence of the building concept.

A Democratic Method: The Student-Led Discussion Group

Returning to the survey of student attitudes for the principles of education course, the wide variation in student viewpoint within a particular area of opinion makes the small student-led discussion group a growth-promoting device. Since students differ, they may aid each other. Nor is this aid merely a case of the more able students helping the weak. Often there comes a broadening and enriching interchange which benefits all. Whenever a large class is divided into small groups for the discussion of vital issues, hidden attitudes are more likely to be exposed, shaken, and modified. A few essentials of this technique may be mentioned. The size of group which has proved most effective is from six to ten members. Rotating chairmen can be chosen by secret nominating ballot. The chairman's chief duty is to secure participation by all the members without permitting anyone, even himself, to dominate. The problem chosen by students and instructor for discussion should be appropriate to the group's interest and abilities. Wan-

dering discussion should be prevented by the definiteness of the problem itself. The secretary should keep a running report of the ideas presented and the conflicts exposed. The use of this small-group technique during part of a class period stimulates the student and thus opens for the instructor a better opportunity to promote well-organized growth as he leads the whole class in the discussion of questions which have been uncovered and partially defined within the smaller groups. Fact finding and mastery are stimulated by such devices, but the great advantage lies in the *mutual* modification of attitudes which reaches every student.¹⁰ This process too is a democratic sharing of ideas and interests; it encourages unique contributions from different students and promotes intelligent thinking by all.¹¹

The Formal Questionnaire Obscures Issues

The students' answers to the writer's informal inquiry also indicated that these freshmen in the teacher-training course did not appreciate adequately the importance of critical, reflective thinking and of systematic, scientific organization. They more often stressed "interest" and "socialization," with a relative neglect of organized thinking. Thus, the instructor was forewarned of student needs. In another institution different needs might be exposed clearly by such an inquiry, although it is too simple to be dignified by the label "questionnaire."

In this connection note that the more exacting questionnaires, which are allied with the "curriculum-building" concept, commonly confine the responses to certain points which have been selected previously by the investigator. The student checks an item or omits it. The statistical summary indicates which items lack emphasis. But this type of in-

quiry fails to reveal new points and may neglect whole areas. The simpler, freer kind of question often exposes the student's views much more fully to the instructor who takes time to read the answers. In contrast, an administrator who depends upon clerical help of a mechanistic type to check and compute results of questionnaires will find usually that his previous suspicions have been merely confirmed because he leaves the students so little opportunity to show forth their unique outlooks, conflicts, and confusions. The broad, general question makes its significant contribution in the formative stage of curriculum-revision projects, and will contribute directly to those modifications desired in most supervisory investigations.

Enough has been said to suggest the kind of results which may be obtained from a simple inquiry. The questions used by the writer may be too restrictive. Or, fuller light may come through the use of more definite questions. The reader can judge fairly how much this device is worth *after* he has tried a few, simple, general questions with his own students.

Co-Operative Curriculum Revision: The Democratic Way

Now we can return to the larger problem of co-operative action in the revision of a "principles" course. Several steps have been outlined: a statement of five growing points by each instructor; a simple inquiry into student attitudes; the rewriting of points in terms of growth areas; the reconsideration of his own list by each instructor in the light of the problems discovered by his colleagues. During the months devoted to these steps, will not growth occur in teachers as well as in courses? Two thoughtful leaders, who believe in experimentation and have faith in democracy, close their

chapter on curriculum construction with an affirmative answer:

A program such as has been described results not only in developing a sensitivity, on the part of teachers and supervisors, to the need for continuous experimental study of curricular problems, but it also serves as an effective means for stimulating the professional growth of the teacher which, in the last analysis, is the most effective way of improving learning and teaching.¹²

The next step in a democratic procedure may be a round-table conference of instructors with the leaders who have wider educational responsibility. Administrators, supervisors, and specialists may well participate in this conference to the degree that their leadership contributes to the growth of all the members of the group. Their presentations should be received as suggestions for further experimentation—as foods to be digested rather than swallowed whole. Here each instructor may give according to his experience and take according to his needs and those of his students. Public-school teachers and superintendents may also participate in this teacher-training conference. Such a conference will strengthen administrators and specialists as well as the instructors. Consequently, a continuous organic growth of the curriculum rather than prescribed uniformity will be fostered. Democratic sharing of responsibility rather than hierarchic dictation will be promoted.

Finally, the growth analogy suggests organic unity as an outcome. The administrative leaders have peculiar responsibility for guiding each instructor to the discovery of relations among the several areas of growth in his own course. The course should become organized somewhat as the facts of a science are organized—ever ready for reorganization as

new facts and new issues are seen. A consideration of the conflicts resolved and the chief attitudes developed in a course may lead to their unification in a single fundamental issue. When several of these central issues are brought from the different institutions to the co-operative round table, they may be integrated through able leadership into a single comprehensive aim for all the courses in the affiliated schools. Whether this central aim is "democracy" or some other definite ideal, the outcome may be unity of aim but diversity of approach and variation in content. Different emphases in the several courses may still contribute to one growing aim. The focus of instruction will then be characterized by vitality and healthy stability without the rigidity which accompanies certain misinterpretations of scientific method.¹⁸

Valid Aspects of the "Building" Procedure

The close adherence to "growing" in the discussion should not be so one-sided as to exclude the valid offerings of the "building" procedure. Analogies have often misled their devotees; so the reader needs to be wary. There are times when the administrator, after wide consultation, must take action in clearing the ground, just as the orchardist must destroy utterly a diseased tree or even a whole orchard. Occasionally, drastic, artificial surgery is necessary in a bearing orchard. Yet these occasions are the exceptions rather than the rule. They are not justified except as they promise to contribute eventually to a wider sharing of interests by all concerned. The increasing appeal which the concept of "growing" is making to those responsible for leadership in curriculum revision is a sign of health and vigor in our schools. It is a sign of the new democracy working in the field of public education.

Democracy and the Public-School Curriculum

The foregoing extensive illustration of the application of democracy as a central aim to the problem of curriculum change in teacher-training institutions can readily be transferred by the reader to the public-school situations with which he may be directly concerned. What changes in attitude are being fostered in these fourth-graders by their teacher, or in the high-school physics class by the instructor? In revising an elementary- or secondary-school curriculum, the prime question to be faced is that of the effects upon the pupils' personality and character. How much growth and what kind of growth will the new curriculum produce? ¹⁴ In answering such questions, the round-table conference should surely include parents as well as teachers, supervisors, superintendents, and members of state departments of education. In fact, the child's life in school and out is his curriculum, so no fundamental improvement can be made in it without the parents' participating in the revision of the child's experiences. Furthermore, parents should come to such conferences 'as givers of suggestions, and not just receivers. Democracy involves a free flow of thought and action between parents, teachers, school administrators, and young people. When parents and teachers share their views of examinations, marks, and discipline, as well as subject-matter content, the way is opened for progress through statewide curriculum revisions. As school systems change gradually from autocratic hierarchies into representative democracies, public education will render more substantial support to the reorganization of community life upon the principle of an ever-widening extension of common purposes and mutual interests.

NOTES

1. See Chapter XII, the section entitled, "Redefinition of Aims through Use," p. 272.

2. See Chapter III, the section entitled, "Workmanship versus Mark-Getting and Money-Making," p. 53.

3. Bode, *Modern Educational Theories*, Chap. IV, "Curriculum Construction and Consensus of Opinion." Teachers are warned (p. 82), "In this day of questionnaires . . . it has become a habit with us, when we are puzzled by a problem, to consult others who are equally puzzled or who perhaps have not reflected on the problem at all and to evolve a solution out of our collective ignorance." From Bode, Boyd H., *Modern Educational Theories*. By permission of The Macmillan Company, Publishers. New York, 1927.

4. See Chapter IV, the section entitled, "Democracy in Activity Units," p. 93, for a consideration of the relations of item-mastery to autocratic methods in the school. Also see: Kilpatrick, W. H., *Re-making the Curriculum* (New York, Newson and Company, 1936).

5. Nelson, M. G., "Measuring the Objectives of State Syllabi," *New York State Education*, December, 1931, pp. 325f. The whole article should be read to determine to what extent it reveals conflicting views or shows a balanced and integrated plan of curriculum revision.

6. Segel, D., "What Are Comprehensive Examinations?" *School Life*, December, 1931, p. 76. (*Italics not in the original.*)

7. See Chapter IV, the section entitled, "Harmonizing Conflicting Aspects of Organization," p. 90, for a study of the relation between items of knowledge and broad units of understanding.

8. Hartman, George W., "The Social Attitudes and Information of American Teachers," *The Teacher and Society* (Kilpatrick, Dewey, and others), New York, D. Appleton-Century Company, 1937, p. 212. The chapter, besides showing the relation between information and attitude among public-school teachers, also compares teachers with the general public and considers the effect of teachers' attitudes upon the attitudes of pupils. The whole book contributes toward a social outlook for all teachers.

9. Tyler, Ralph, and associates, "Application of Principles Related to Chemistry," "Interpretation of Data," *Evaluation Tests in the Eight Year Study of the Progressive Education Association*, Columbus, Ohio State University, 1935. These tests illustrate the kind of objective test which is prepared with extreme care that the edu-

cational aims of the course and institution shall be consistently promoted. Similar tests may be devised for other fields such as the education of public-school teachers.

10. Wynne, John P., *The Teacher and the Curriculum*, New York, Prentice-Hall, Inc., 1937, Chap. XXIII. This chapter on "Evaluation by Pupils" describes a movement toward the wider sharing of responsibility, which is another application of democracy in the school.

11. For further consideration of the problem arising out of the conflict between the teacher's strong desire to modify students' attitudes toward a selected social aim and his wish to permit them to take responsibility democratically for their own attitudes see Chapter XV, the section entitled, "Relations of Thinking and Coercion in a Democracy," p. 335.

12. Alberty, H. B., and Thayer, V. T., *Supervision in the Secondary School*, Boston, D. C. Heath and Company, 1931, p. 243. The quotation is taken from Chapter XI, "Stimulating Teacher Growth through Curriculum Construction." Chapter VI, "A Democratic Conception of Supervision," also bears directly upon the problem of devising democratic methods for a whole educational system. Throughout the book the principles developed apply to the elementary school and to higher institutions as well as to the secondary school. For a discussion of other ways in which a democratic administration may promote teacher growth, see: Myers, Kifer, Merry, and Foley, *Co-operative Supervision in the Public Schools* (New York, Prentice-Hall, Inc., 1938), Unit IV, "Professional Improvement of Teachers in Service: A Co-operative Enterprise."

13. Dewey, John, *The Sources of a Science of Education*, New York, Liveright Publishing Corporation, 1929. In this essay teachers are warned (p. 26), "Educational science cannot be constructed simply by borrowing the techniques of experiment and measurement found in physical science." Dewey also suggests (p. 44), "Some kind of vital current flowing between the field worker and the research worker is essential." The essay contains many thoughts which will enlarge the scope of the comparison made between "growing" and "building" in curriculum revision.

14. Sloan, Paul W., "How Do Different School Programs Affect Studies of Growth of Children?" *Educational Administration and Supervision*, December, 1937, pp. 694-697. A very concise and acute discussion of the diverse effects of child-centered, subject-matter-centered, "ism"-centered, and democratic-centered curricula.

CHAPTER XIV

Scientific Experimentation and Social Democracy

Two speakers at a conference of educators were outlining their respective views of the main ideas that should guide curriculum modification in public schools. The key word of Doctor *A*'s speech was "experimentation," while Professor *B* constantly referred to "democracy." Each man was speaking in terms of a broad conception. The difference in phrasing was emphasized so consistently that a close listener would have soon come to the conclusion that two contrasting viewpoints were being defended. Certainly, a foreign visitor who had not become accustomed to the current practice among American educators of interchanging the concepts *democracy* and *experimentalism* would have expected vigorous controversial discussion when the chairman opened the question to the floor. Instead, although the group of schoolmen had listened intently to both speakers, no one present raised any question concerning the relation of the democratic ideal to an experimental program. Both speakers received warm and sincere approval from the same parties. Apparently, even Doctor *A* accepted Professor *B*'s view, and likewise Professor *B* agreed with Doctor *A*. Such a situation may indicate, among other things, that experimentalism and democracy have almost the same objectives, or that they are comple-

mentary ideas always supporting each other. Further, the lack of critical comment may indicate a general inability to see a subtle but important problem. Are American teachers so used to accepting democracy and experimentalism as fundamental ideals that they cannot see the difference between them? Do they not realize that at times one of these ideals must be chosen as the dominant aim, or that intelligible relations between the two ideas must be discovered?

If the reader will step out of the stream of his school duties for a moment so that he can acquire a more definite view of the two ideas—social democracy and scientific experimentation—he may be struck by their apparent contrast. For many people experimentation implies a cold, calculating trial of any proposed method by a highly trained and skeptical scientist. Democracy suggests a warm advocacy of a certain Utopian way of life by an ardent and confident humanitarian; the maximum development of each individual so that all may enjoy abundant living is emphasized. A feeling of brotherly kindness pervades the democratic ideal. The term *experimentation* carries us back to arduous and exacting problems in science laboratories, which required rigid control and accurate measurement; while the present challenge of democracy may recall those exciting midnight discussions in which as college sophomores we revolutionized the social order. Each type of experience has left its traces, heavy or light, upon the life of every school administrator and teacher. Some educators seem concerned chiefly with techniques of controlled experimentation and statistical measurement. Others stress free group activities and a socializing atmosphere. Most of us seek to combine scientific experimentation with a social program. So we face the urgent problem of establishing a valid relation between de-

mocracy and experimentalism that will guide educational choices and social action.

The difficulty seems to increase when we turn to consult the educational philosopher. No doubt our Professor *B* would acknowledge his heavy indebtedness to John Dewey, America's foremost exponent of democracy in education. Yet Doctor *A* could well gain support from the same authority for an experimental program. Indeed, Dewey has been accused repeatedly of not making clear in his writings that he holds anything more definite than a trust in scientific experimentation. In reviewing Dewey's *The Quest for Certainty*,¹ M. C. Otto points out that the author carefully avoids telling the reader just what he regards as of real worth in life. Dewey's denial of final, fixed objectives in favor of unending experimentation even leaves the impression with some critics, which is encouraged by the loose talk of some disciples, that he believes progress is a continual trying without reference to definite outcomes. Thus Otto concludes:²

This hesitancy has characterized the author in other books, as a result of which he is widely supposed to hold that the aim of life should be to *go*; not to go anywhere in particular (God forbid!), but to keep on going nowhere.

If the fundamental doctrines upon which American education is being reconstructed are so open to misinterpretation, it is time that parents and teachers began to inquire more deeply into the meaning of such evasive terms as *experimentation* and *democracy*. Each of us needs to be aware of the broad, loose way in which we use the term *democracy*, not that we should restrict its meaning to a narrow definition, but that we may organize the many aspects of the concept into a functioning aim. It is not merely a method; it

is a social objective. We need also to recognize the far-reaching implications of scientific method with its emphasis upon continuous experimentation. How is one's faith in scientific procedure related to his social outlook?

Diverse Origins of Experimentation and Democracy

A first step toward the discovery of distinctions and relations may be taken by tracing the diverse origins of the two concepts.

The experimental procedure as a fundamental attitude toward life is the outcome of centuries of scientific research. The invention and use of experimental methods and scientific techniques, first in the physical sciences and later in the biological and social sciences, has led many persons besides the investigators themselves to look upon all of life's problems from an experimental point of view. A still more important aspect is a consistent willingness to try new ideas and hypotheses in solving problems of every sort. The experimentalist expects man to attain a more and more effective control of physical, biological, and social forces through employing scientific procedures. In the educational field the scientifically minded have conducted investigations of diverse aspects of behavior, which range from the narrowly controlled neuromuscular reactions of a frog's leg to the complex social activities of preschool children in an atmosphere of freedom. True, in the recent past some educators have favored the restriction of research to problems which are susceptible to statistical treatment and accurate measurement. But at present a broader interpretation is coming into vogue, so that the scientific attitude now encourages experimentation in every field of human concern, even in social, economic, political, ethical, and religious problems. This point of view

also involves approval of a wide variety of methods of investigation. Thus, the fundamental attitude of the scientific educator, which was derived originally from the laboratory, has become a faith in experimentation as a continuous and unending process involving vigorous denial of any restrictions or limitations derived from preconceived notions of "the proper" educational method or aim. The experimentalist has moved on from skill as a technician in a limited field to the achievement of an inclusive philosophic view to which we have referred as *experimentalism*.

The origin of the democratic social ideal, which permeates discussions of educational aims in this country, is not so easily traced as that of the experimental attitude. Although many intellectual leaders have contributed to the creation of the democratic philosophy, it is evident that democracy as a way of life has developed through the informal association of ordinary people in groups, as contrasted with the highly technical organization of scientific laboratories from which the concept *experimentalism* is derived. This difference in origin suggests a difference in meaning, in intent, and possibly in outcomes. While an exact definition of democracy which would be acceptable to all may not be readily found, one idea evolved from common experience is that each individual should have opportunity for a full and happy life. To achieve this goal for the individual a much wider sharing of life's goods—material, intellectual, and spiritual—is essential. Every person's life is to be enriched. This program implies a certain respect for the interests and aptitudes of each individual, especially for the abilities of each growing child. According to this definition, democracy would seek the welfare of all, not of a minority nor of a mere majority. Its acceptance as a guiding ideal commonly presup-

poses the adoption of certain forms of social organization which are neither autocratic nor dictatorial and the use of methods that lead toward certain social outcomes. When a teacher accepts the democratic principle of sharing, he begins to move in a more definite direction toward a goal that seems more concrete and specific than does a generalized faith in scientific experimentation.

If our distinction between experimentalism's open-minded willingness to try new hypotheses and democracy's peculiar interest in each human being is valid, how can a teacher embrace both attitudes at the same time upon equal terms? Dare anyone claim to be a thorough-going experimentalist and also a whole-souled advocate of a chosen social order like democracy? Shall the teacher follow experimentation today and democracy tomorrow? Or do these two concepts have a natural affinity, which is more fundamental than any verbal distinctions?

Unending Research and Denial of External Authority

The answer to these questions must be sought in experience. Can each of us as students and teachers *live* the life of the experimentalist and at the same time follow the democratic way?

Consider a teacher and his class attacking a problem of geography in an experimental attitude. Each item of information and each suggested hypothesis will be given a chance to function in achieving the solution. No textbook, student, or teacher may be treated as an exclusive source—as a not-to-be-questioned authority. Students and teacher must listen willingly to each pertinent proposal.

From the standpoint of method would not this experimental procedure also satisfy the advocate of democracy?

The application of democracy to group discussion means that all shall share; each individual shall have his say and his hearing. Since hypotheses are always offered by individuals, the experimentalist's welcome of new hypotheses really accomplishes a democratic treatment of each student. Thus experimentalism appears to be genuinely humane and social, surely not antisocial. So far the experimentalist's method of teaching seems indistinguishable from teaching in a democratic way.

Experimentalism's demand for continued, unending research also accords with the democratic emphasis upon the continuous widening of interests. The refusal of science to close its books in any field, and the encouragement given each new generation of physicists and psychologists to challenge its teachers, may be identified with the doctrine of an American revolutionist, Thomas Paine.

The fee absolute is not with them [former generations], it is not in us, it belongs to the whole family of man, thro' all the ages. If we think otherwise than this, we think either as slaves or as tyrants.

Democracy's revolt against external authority derived from the fixed traditions of a past generation or from the unyielding demands of a present minority and experimentalism's denial of fixed goals in favor of continuous testing of new scientific hypotheses are intimately related.

Does Experimentalism Favor the Sharing of Resources?

But does the scientific attitude support the widespread sharing of resources which democracy is said to imply? According to Childs, "Experimentalism . . . does place its emphasis on examining the world as *our* world."⁸ This point

of view, which begins with a confidence in man's power to remake his earth, goes on to assert his right to do so, and finally frankly seeks in scientific control for the way of progress in furthering human purposes. Whenever an educator interprets experimentalism in this way, he will wish to discover those geniuses among youth who may make significant contributions to science, for example. Inasmuch as studies in genetics indicate that no one can predict in which families genius will emerge, and that genius may not be discovered in a child if the environmental conditions are unfavorable, the experimentalist is inclined to encourage universal public education as an experimental device in the discovery of unusual abilities in individuals.⁴ This inclination to provide for a widened sharing of initial educational opportunities is likely to extend beyond the school to other environmental factors which have pronounced effect upon development. Thus, the experimentalist may be found supporting public-health measures, economic-relief programs, and other so-called "social" movements. The point is that an experimentalist and an advocate of democracy may favor the same program, although the antecedently assumed premises and logical processes through which each justifies it may differ fundamentally. So, on some occasions one person can consistently adhere to both experimentalism and democracy.

Conflict of Aims in the Selection of Experiments

The affinity between democracy and experimentalism is not always so close, however, for experimentalism represents a more open attitude toward an extremely wide variety of investigations, while democracy is inclined to choose experiments within areas selected according to its social aim. In practical life, not all experiments proposed can be carried

through; the most promising must be selected. With a limited budget for education, school boards and state departments must make a choice, for example, between the extension of graduate research in the sciences, of elementary-science study by children, or of practical science for untrained adults in evening schools. In answering such a question the democratic attitude may have considerable bearing upon the program adopted, and thereby upon the conclusions reached by another set of leaders a generation later. We must never forget that the data available at any time depends upon the kind of experiments which have been chosen in the past. Refusal to experiment in widening the sharing of interests is likely to retard seriously progress in democracy.

A further example is presented when one of our American philosophers suggests that the opening of state universities to all high-school students is a mistake.⁵ The discussion implies that perhaps only one-fourth of the freshmen who now enter the state university should be permitted to do so. In other words, a new kind of experiment in state university education is demanded—one which many would call undemocratic.

In contrast, other able thinkers point approvingly to the growing public demand that even college education shall be made universal.

Thirty years ago the terms "common school" and "elementary school" were synonymous. Today we may appropriately designate the secondary school as the common school. Moreover, this secondary school is reaching upward to include the two years of the junior college. Those progressive communities that have already incorporated the junior college as an integral part of their public-school systems are merely shaping the structure of the school in accordance with the principle (the principle which

underlies compulsory school-attendance laws) that the American people are committed to universal education for all normal adolescent boys and girls.⁸

These contrasting proposals, one of which moves toward the limitation and the other toward the increase of college and university enrollment, indicate how greatly the social aim may influence a crucial choice. Whenever such a choice is made by an individual, he should not fail to recognize that he is being guided by his social point of view. Clarity of thinking is more likely to occur if the educator defines his social aim, be it democracy or what not, than if he claims to be an unbiased experimentalist. The latter attitude gives preconceived ideas and prejudices too much freedom to operate clandestinely. A careful consideration of the aims of education is essential in setting up programs of experimentation. This applies as definitely to the classroom teacher as to the state commissioner of education.

The Experimental Attitude and Choice of Action

It is difficult to give clear verbal expression to a philosophy of life which embraces a generalized experimental attitude and particular social convictions concerning democracy. Frequent misinterpretations of Dewey's writings illustrate this difficulty. This misinterpretation may be reduced, however, by turning from abstract statements to concrete experience. If we turn from Dewey's philosophical writings to Dewey's *life*, we find that he has shown definite inclinations toward what he terms *democracy*. During the generation which has intervened since John Dewey began to assist Jane Addams in the Hull House project and other civic movements in Chicago, the American public has had ample

opportunity to observe the direction of his aims and ideals by taking note of the projects Dewey has promoted and the points on which he has concentrated his adverse criticism. His activities have not been merely experimental; they have been carefully selected *experiments in democracy*. Each experiment has been called forth by insight and sensitiveness concerning a social need. For example, his challenge to progressives to form a new political party was not just an expression of a life-long fondness for experimentation. Yet even in the exposition of this program the old problem arose—the necessity for adjustment between the statement of a social program and the maintenance of an experimental attitude.

Early in 1931 the writer listened as Mr. Dewey spoke upon the principles underlying the new political movement before a popular audience in lower Manhattan. His speech had a definite social trend which made the listener feel the need for changes in political action in the interest of all the people; the democratic attitude was dominant and striking. At the close of the address, however, when an opportunity was given for questions, the questioners seemed bent upon driving Mr. Dewey still further into definite statements concerning the platform and program of the proposed party. He was challenged to state his position on various problems; one man asked, "How does your proposal differ from that of the Socialist Party?" Under such pressure Mr. Dewey began to point to the necessity of working out the more definite program through group conferences of those interested. This answer was doubtless in terms of democracy—the sharing of ideas and interests. But as he was pressed still further, Mr. Dewey spoke of the need for a flexible social and political program which may be modified in the light of events as

they occur. The speaker had swung around to the experimental emphasis—a point of view which some out-and-out partisans in the audience found difficult to understand or appreciate, because their emotionalized vision was fixed on a certain definite program. Such an experience brings the thoughtful teacher or parent face to face with the problem: How can one grasp both essentials—scientific experimentation and social democracy?

A Continuing Principle: Freedom of Thought and Experimentation

The experimental attitude appears to be absolutely fundamental. Since social change is continuous and inevitable, experimental readjustment will always be necessary. Any theory of education, economics, or ethics that fails to recognize this fact will meet defeat in the end. Furthermore, since fruitful experimentation in the laboratory has never been a random fumbling with chemicals and electrical currents, social experimentation also requires careful planning involving intelligent thought concerning the psychological and economic factors involved. The emphasis upon continued experimentation implies, however, that the choosing and planning shall not proceed in any direction that blocks further thinking. Especially, scientifically minded thinkers refuse to have experimentation blocked by any external force.⁷ This refusal is akin to being tolerant of every form of action and thought except those actions and thoughts characterized by intolerance. Thus, a limitation is set even on the character of experimentation by establishing the guiding principle that experiments be encouraged whenever they leave the way open for further experimentation. Let teachers and parents encourage the kind of thinking in

themselves and their children that leads to further thinking. Continuous thinking and experimenting constitutes a principle that must be retained.

Sharing as a Principle of Democratic Social Organization

But this theoretical principle—of free, experimental action and critical thinking—must be put to work in communities and schoolrooms where time, space, and equipment are limited. Freedom in silent thought might be permitted by assigning each pupil to a solitary school desk or by providing each citizen with a small monastic cell; but in a living, growing group of children or a working community of adults the bumping clash of individuals is apt to prevent the freedom theory from working unless it is supplemented and supported by a social plan. Since freedom of thought is chiefly a device for promoting effective action,⁸ the practical citizen and educator must do something more than carry banners insisting upon free thought and free speech. The implement in which most Americans have faith is democracy as a form of social organization; they believe that democracy offers the most favorable conditions for avoiding disrupting clash between individuals or groups, while at the same time promoting the kind of experimentation that will insure the preservation and increase of human worth. The underlying idea of democracy so interpreted is the sharing of interests, which leads to shared control and shared responsibility. Clash is to be reduced by full communication of needs and purposes among the members of the group. From this point of view democracy provides a method by which social experimentation is promoted continuously. As long as one holds to this view, he will not discard democracy unless he discovers a form of social organization that will

promote freer and fuller human action. In practice, the discovery of new methods of organizing community and national life has led to frequent redefinition of democracy itself—to the continued experimental reconstruction of the democratic social process.

The Democratic Creed and Experimentalism

In order to obtain a fresh and simplified view of the democratic way of life, look again at the growing child of fifteen months—the “running-about” age. The young child is an adjustive organism always trying to do new things; with his flexible hands he manipulates objects, his legs carry him here and there, his eyes focus and refocus on colors, forms, and movements, while his brain co-ordinates all these and countless more creative adjustments. Even in infancy the child is beginning to take an experimental attitude toward life. A few months later he begins to share the ideas conveyed by the language of his family. It is a fundamental fact that through such sharing of ideas the child becomes intelligent and social. Practically all that he learns comes through sharing in the experience of others. The *fact* is commonly stated: “All education *is* social.” This family contact, however, may not reach a democratic level. But we may transform this fact of social sharing into an ideal by insisting on the continuous widening of the area of shared experience and by emphasizing the sharing of interests as well as understandings. So we reach the *ideal*: “All education *should be* more social.” Finally, we combine the continuous experimental adjustiveness of animal life with the intellectual sharing of experience through human communication into a simple democratic creed that the social organi-

zation should aim to widen continually the scope of shared interests.⁹

Although the democratic creed is simple in statement, its application in modern society is a complicated process. Many customs have developed in the past that interfere with the widening of shared interests. The opportunity is not always open for each individual to propose new interests to be shared and new forms of community living to promote sharing. Sometimes democracy is misinterpreted as a mere widening of the number of persons who accept a fixed set of ideas and interests determined in advance by a few self-chosen leaders. The democratic creed is actually creative in spirit; new ideas and new experiments are to be welcomed. The application of the democratic philosophy involves much readjustment in both the production and the consumption of material resources before the narrow interests of competing individuals can be widened into a broad sharing of mutual interests.¹⁰ But the democratic way of life incorporates within itself all the experimental attitudes that promise to further a widened sharing of common purposes.¹¹

A Similar Confusion About Growth as an Aim

If the pseudo-problem of conflict between democracy and experimentalism can be solved by establishing an understanding of their relationships, it may be possible to deal in the same way with the similar confusion surrounding the term "growth" in current educational discussions. Again that dean of modern educational philosophers, John Dewey, is criticized for not making clear his point of view. In protest against parents and teachers who set up far in advance fixed goals for their children, Dewey has argued that growth

should *be* an end rather than *have* an end.¹² His plea for experimental living runs:¹³

Since growth is the characteristic of life, education is all one with growing; it has no end beyond itself. The criterion of the value of school education is the extent in which it creates a desire for continued growth and supplies means for making that desire effective in fact.

Such a statement taken out of its context has given the impression that the *direction* of growth is of no concern. Accordingly, the aims, such as democracy, aesthetic appreciation, or human kindness need not be considered. It sounds as though children should be left so free from guidance that they could all say with Topsy, "I just grewed." Although Dewey makes clear in the preceding chapters entitled, "Education as a Social Function," and "Education as Direction," that each child acquires aims for life through sharing in the activities of his family and community, many parents and teachers are confused by the slogans: growth that leads to more growth, activity leading to further activity. Bode may be correct in his assertion, "The doctrine of growth, in its present form, becomes a positive obstacle to clear thinking on the part of the teacher."¹⁴ He points out further that certain of Dewey's statements about aim tend to confuse the issue. In one place Dewey says, "Education as such has no aims. Only persons, parents, and teachers, etc., have aims, not an abstract idea like education."¹⁵

As a consequence of confusion concerning the relation between direction guides and growth, Bode finds Dewey's followers shifting back and forth between the "growth" idea and the selected aims to which they have become devoted by their intellectual training or by their schoolish prejudices.

Each of these professed Dewey disciples assumes his own right to choose for children the school experiences which he hopes will produce in them the kind of growth he desires. This way of using the growth idea consists in applying it mainly as a protest against imposition by other teachers whose aims differ from one's own. Or at times the advocate of individual growth talks as though the "inner growth" of each individual must be respected to the extent of disregarding any validity tests for scientific statements or any considerations concerning reasonableness of the social outlook. Has the conflict between growing freely and progressing toward a chosen aim been made just a childish teeter-totter for pedagogical pundits? ¹⁶

When one turns to Dewey's own words concerning the nature and need of aims in education, the psychological process may become clearer. In summing up his chapter on "Aims in Education," Dewey says: ¹⁷

An aim denotes the result of any natural process brought to consciousness and made a factor in determining present observation and choice of ways of acting. It signifies that action has become intelligent. Specifically it means foresight of the alternative consequences attendant upon acting in a given situation in different ways, and the use of *what is anticipated to direct* observation and experiment. A true aim is thus opposed at every point to an aim which is imposed upon a process of action from without.

The main point here is that in so far as a parent or teacher creates aims out of his experience with children and with society, he becomes intelligent. Unless one gains foresight of something anticipated and directs experimentation accordingly, he is unintelligent. This means that while con-

tinued growth is the ultimate aim, many immediate and intermediate aims must be employed in their contributing relationships. The question remaining is: How can one achieve an intelligent understanding of the relations between school activities and social progress?

Growth through the Clarification of Crucial Conflicts

Bode suggests that emancipation from the bonds of tradition is the prime need. In every age men and nations have been blinded by looking through the eyes of their misinformed elders. Experience needs to be reconstructed by focusing upon certain crucial questions. In general, this basic reconstruction has to do with the reconciliation of conflicting notions, especially those which persist through a compartmentalization that resists even the exposure of the conflict. As has been mentioned earlier,¹⁸ Dewey has long devoted his energy and ability to this process of reconciling unnecessary conflicts between interest and duty, work and play, labor and leisure, and many another. Thus in theory and practice, Bode and Dewey are in fundamental agreement concerning the general procedure that leads toward an intelligent social outlook. The present discussion illustrates this approach in its attempt to show relations between the "growth" ideal and the methods of "direction," and between "experimentation" and "democracy."

It may be well to point out in conclusion that the *selection* of conflicts to consider in any public school or college class is a matter that calls for intelligent judgment. In making this judgment, each teacher should be guided by his understanding of democracy as it bears upon the needs of the learners. The encouraging feature is that the selection of a conflict and the consequent discovery of relations between its

contrasting aspects may constitute the most effective means of cultivating intelligent judgment for the next choice. At all times, the fruitfulness of the choices made depends upon a kindly interest in humanity rather than an intellectualism that prides itself upon attacking ticklish but socially insignificant problems.¹⁹

NOTES

1. See Note 19 to Chapter IX, p. 209.
2. Otto, M. C., Review of *The Quest for Certainty*, *Philosophical Review*, January, 1931, p. 87. Credit is given to Dewey for a thorough destruction of two theoretical alternatives at present offered—appeal to so-called eternal values or to immediate satisfactions. While scientific method may lead to the relatively secure, Otto points out “the possibility and the necessity of offering concrete suggestions, in a tentative manner, of some things the good man should aim to achieve and some things he should aim to avoid.” In defense of Dewey, Otto says that while *The Quest of Certainty* is devoted mainly to negative, destructive criticism of historical theories of knowledge, “it is so rich in statements of a positive character that a considerable book might easily be made of them.” In another place Otto has warned students against secondhand recitals of Dewey’s views: “Dr. Dewey has not escaped interpretation by critics who have taken no pains to understand him and by disciples who have been satisfied with facility in the use of terminology. Both have set going erroneous notions regarding his aims, his method, and his outlook.” (*The Christian Register*, January 11, 1934, p. 21.) To follow the fundamental problem further the student may turn to Otto’s *Natural Laws and Human Hopes* (New York, Henry Holt and Company, 1926). In this essay Otto provides a more positive introduction to the question of the relation of science and the higher life treated in a somewhat negative way in his *Things and Ideals*. See Note 14 to Chapter VI, p. 139, and Note 18 to Chapter X, p. 227.
3. Childs, John L., *Education and the Philosophy of Experimentalism*, New York, D. Appleton-Century Company, 1931, p. 92. The quotation is taken from the section entitled, “Experimentalism and Democracy.” At this place and throughout the book, the author points out *connections* between the principle of experimentation and the principle of democracy.

4. See Chapter VIII, the section entitled, "Does Democracy Maintain the Normal Distribution?" p. 173.

5. Sabine, George H., "Are State Universities Different?" *School and Society*, September 12, 1931, p. 354.

6. Alberty, H. B., and Thayer, V. T., *Supervision in the Secondary School*, Boston, D. C. Heath and Company, 1931, pp. 5f.

7. See Chapter II for a consideration of the diverse sources of social change.

8. See Chapter VIII, the section entitled, "Creative Intelligence and the Language Tool," p. 171.

9. Bode, Boyd H., *Fundamentals of Education*, New York, The Macmillan Company, 1921, pp. 42ff. The author discusses the diverse and confusing meanings attached to the term *social*.

10. The relation of the production and consumption aspects of life must be considered in any attempt to promote a democratic way of life. From the standpoint of consumption, democracy implies the right of every individual to an ample share, if not an equal one, in all the resources of the community or nation. Notice that this ideal of an abundant life for all persons might be achieved conceivably under a benevolent dictatorship. An individual may receive a liberal share of goods for his personal consumption, yet have no share in determining the processes of production. For example, a factory hand may receive high wages in a plant while he does not participate at all in its management. From the standpoint of social organization for production, on the other hand, democracy emphasizes widespread participation in the control of the process. While these two aspects of democracy are very different, there is substantial evidence that in economic life wider participation in the management of production is accompanied by wider sharing of the consumable goods. Furthermore, the rise of quality in life seems most likely to flow from a wider quantitative distribution of opportunities both to produce and to consume. If the widest possible distribution of values for consumption is made the main consideration, however, the production of higher values in each generation necessarily becomes secondary and supplementary. When an argument arises concerning whether democracy is a goal of individual happiness for all or a method of social organization for industrial activity, it may be well to clarify the discussion by showing that one speaker is thinking of consumption while the other is thinking of production. Instead of arguing on either side exclusively, everyone who participates in a democracy needs to keep in view consistently the actual relations between pro-

duction and consumption in his own life as well as in that of his fellows. The experimental development of wider opportunity for consumption and greater ability to appreciate life must be linked closely with inventions on the production side if the possibilities of democracy are to become actualities. The conflict between the production and consumption aspects may be resolved in large measure, however, by placing the emphasis upon the development of common interests. If the members of a group have a mutual interest, this interest comprehends whatever production responsibilities are necessary for the consumption pleasures anticipated. In other words, the sharing of a far-reaching interest brings its production and consumption aspects into intelligent and kindly adjustment. See reference to Stuart in Note 16 to Chapter IX, and the reference to Bode in Note 3 to Chapter XV. For a concise statement of the present situation see: Harap, Henry, "Why Consumer Education?" *Journal of Educational Sociology*, March, 1938, pp. 387-397. This special issue of the *Journal* is devoted to "Education for Wise Consumption."

11. Bode, Boyd H., *Democracy as a Way of Life*, New York, The Macmillan Company, 1937, p. 94. Democracy is conceived as "a way of life which does not involve fixed patterns at all."

12. Dewey, John, *Democracy and Education*, New York, The Macmillan Company, 1916, p. 60.

13. From Dewey, John, *Democracy and Education*. By permission of The Macmillan Company, Publishers. New York, 1916, p. 62.

14. Bode, Boyd H., "Education as Growth: Some Confusions," *Progressive Education*, March, 1937, p. 153. Also see: Bode, Boyd H., *Progressive Education at the Crossroads* (New York, Newson and Company, 1938), Chap. V, "Education as Growth."

15. From Dewey, John, *Democracy and Education*. By permission of The Macmillan Company, Publishers. New York, 1916, p. 125.

16. See Chapter VII, the section entitled, "Overemphasis upon Innate Creativeness," p. 156, and Chapter X, the section entitled, "Is Orientation Inward, Outward, or Both Ways?" p. 217.

17. From Dewey, John, *Democracy and Education*. By permission of The Macmillan Company, Publishers. New York, 1916, p. 129. (*Italics not in the original.*)

18. See Chapter I, the section entitled, "Democracy: A Shared Search for Social Understanding," p. 20.

19. Kallen, Horace M., "Philosophy Today and Tomorrow," *American Philosophy Today and Tomorrow*, Kallen, Horace M.,

and Hook, Sidney, eds., New York, Lee Furman, Inc., 1935, pp. 251-271. This discussion will help orient the student in respect to the significant differences between the classical philosophies of yesterday, full of infallible deliverances, and the philosophies of today confronting the passions of men and current events with doubt and skepticism—and at times with cautious experimentation. Concerning the philosophies of tomorrow, Kallen points out that they must deal with conflicts in political economy between liberal individualism and totalitarian regimentation and with disputes in the natural sciences over materialism and the indeterminism of configurational relationships derived from the new physics of relativity. The serious student of education cannot afford to neglect the contributions of current philosophy, for they have a bearing upon problems of school practice.

CHAPTER XV

Coercion, Thinking, and Social Action

Parents and teachers who are gaining a clearer social outlook become intensely concerned about social change; as they see goals ahead, they are eager to press forward. They are concerned directly with the social growth of the children under their care—the changes in Frank and Florence toward more dependability, initiative, co-operativeness, and other chosen attitudes. Indirectly the adult guide who understands the great influence of conditions outside the home and school upon the child is concerned about social change in the community—the health regulations, the control of recreation facilities, the maintenance of steady employment, the administration of justice in the courts. The more clearly a person sees the individual needs of the children whom he loves and the broad needs of the community in which he works and lives the more ardently he will desire swift social reform. Out of this strong wish for a speeding up of social education and social action emerges the problem of the relation between coercion and thinking in promoting these changes. In previous discussions, emphasis has been placed upon the slow processes of scientific experimentation and reflective thinking which seem inseparable from the continuous widening of interests implied in democracy.¹ Yet all these attempts to understand democracy are of no avail unless

they result in actual social change. So we face the question: How rapidly can the American people make their dream of democracy a reality? ²

The person who is anxious to produce quickly a change in the behavior of a child or in the public affairs of a community soon finds that forceful coercion is the short cut. Whenever force is centered in a few persons, it may be exerted promptly and powerfully. In contrast, the way of careful thinking and experimentation is a very slow method, especially when all the individuals in a group have to reach an agreement through the interplay of discussion. Dictatorships are notable for rapid changes through the use of coercion in its various forms; democracies move with exasperating slowness partly because co-operative thinking takes time. In any American community will be found a group of well-intentioned men and women who believe that the need for drastic alterations in economic and social affairs demands immediate action, and that coercion of the less enlightened and less well-disposed members of the community is the way of progress.³ These advocates of force in the production of radical social change are called revolutionaries or harder names. They insist that although coercion may not be a wholly desirable method, the good end in view justifies the use of means which, though not ideal, are effective.

Coercion and Violence in Adult Society

It happens, moreover, that in the debate concerning coercion versus thinking, the revolutionaries are supported by those who on other grounds are their most direct opponents—the so-called “stand-patters.” In every community this group wants to maintain without change the economic

and the social arrangements which favor their narrow interests; force, usually under the guise of law enforcement, is considered by them the legitimate means. Between these two extreme groups who advise and use forceful methods is usually found a third group of citizens who object to coercion and advocate discussion and conference concerning proposed changes in community affairs. This group claims that these gradual, more peaceful methods, which constitute the democratic way, are more stable and effective in the long run. Since, however, the stand-patters and the revolutionaries are trying to use force on each other continuously, all the people in the community have to live under the threat of violence. The community life is frequently disrupted by friction, tension, and even bloody fighting. As Lindeman says, "At the very moment in history when the advances of science and technology have brought us closer together, into an interdependence, violence has become the leading method of dealing with human relationships." ⁴ Shall we continue to live in a world of violence, or shall we give intelligent sharing of ideas and interests an opportunity to dissolve conflicts?

Coercion Discredited in Education of Children

The prevailing conditions of forceful coercion and violent conflict may seem absurd to those who deal with young children—to wise parents and skillful teachers.⁵ For the study of child psychology and of mental hygiene has led to methods of child training that are much more effective than brute force. During infancy, the processes of conditioning are applied to the child in such pleasant, positive ways that health, joyful activity, and emotional tranquillity are promoted. As the child comes to share in the speech of the

family during his second year, the art of guiding him into a sharing of adult interests reduces coercion to a minimum. Even in the elementary school immediate and more remote interests adapted to the abilities of the youngster have superseded in large measure the coercive harshness of the nineteenth-century school. Five-year-olds may become interested in the dramatic play of train-running or of village-building, which may extend over several days; seven-year-olds may plan consciously and carry out intelligently a postoffice project which can reach a completely operating stage only after a week or more of work; nine-year-olds may run a school store, looking forward to achievements weeks ahead; while eleven-year-olds may attack a social-science problem the solution of which is still more remote. In all these cases, the guidance of interest toward remote goals becomes the moral substitute for coercion. The mental hygienist has made clear the evil effects of coercion upon youth, so in the adolescent years the parent and teacher should refrain from the use of force while they provide avenues for the extension of youth's substantial interests.⁶

Why have these substitutes for coercion not permeated the life of adult society? One answer is that the home and the school protect the child and youth from the kind of conflicts which demand coercive measures. In infancy it seems wiser to keep the child in a safe environment than to spank him for creeping too near the open fire or for crawling into the pathway of speeding motors. Likewise, society protects the child to a large extent from the economic problems that disturb his elders into the advocacy of force. Evidently, the parent or teacher who protects the child from the world of violence is providing only a temporary remedy for the difficulty. While it may be wise to establish schools as

small ideal societies in which children learn to think through their small tasks co-operatively without conflict, this method may be only one step in the solution of the coercion problem faced by the adult world.

Indoctrination: A Confusing Form of Coercion

Another reason why coercion has not been greatly reduced in modern life may be the facility with which it takes on forms that are much more subtle than a frontiersman's fists or a racketeer's automatic. One of these forms, of which the victim himself may not be aware, is "indoctrination." As soon as a young child learns his native language, he begins to receive from his elders one-sided interpretations of the world into which he comes as a wondering stranger. Since the child's immaturity means that he enters this world without any innate ideas, he eagerly accepts any that may be offered—the religion, the economics, or the morality of his time and his household. In the modern world of widespread communication, a dictatorial censorship may reduce the ideas offered within a political state to a single set through the control of the effective tools of propaganda—the newspaper, the talking film, and the radio.⁷ Whenever a rigid dictatorship prescribes all ideas offered to children in the home, the school, and the church, a nation may be remade in one generation according to the design of the central authority who holds the power. Furthermore, since indoctrinating or propagandizing is carried on through language, the victims of this coercive device are deceived into believing that they are thinking. Reasoning and rationalizing resemble each other so closely that it behooves us all to beware in every argument lest we hear, see, and present only one side and thus join the indoctrinated and the indoctrina-

tors. Coercion easily becomes confused with thinking through the use of the devices of indoctrination.

The one-sidedness of indoctrination may affect forceful coercion in a retroactive way. Since indoctrination is usually limited to a particular group, such as a clique, an industrial or professional organization, or a whole nation, there remain other groups who at the same time are becoming indoctrinated in the opposite direction. A farmers' grange, a labor union, a manufacturers' association, and a teachers' organization may each constitute a self-indoctrinating circle as narrowing as a nationalistic group of Germans, Russians, Japanese, or Americans. Whenever two such differently indoctrinated groups come into contact, they clash over their divergent views because each is so sure from the point of view of his own indoctrination that the other groups must be wrong. Through the emotionalized reiteration of different propaganda systems the groups are pointed toward actual conflict. Thus, indoctrination, which is often presented as a mild substitute for physical force, may lead back again to increased violence. Indoctrination is not a half-step toward democracy, but merely a modern phase in the vicious circle of coercion.

Must Children Be Indoctrinated?

Although the dangers of indoctrination on the adult level may be admitted, some educators insist that the situation is different on the level of childhood. Counts, for example, has argued that because the child comes into the world helpless, all child training and education inevitably involves a large measure of imposition; for example, unless the child is early given training in health habits, he will die in infancy.⁸ Beyond infancy the child gains freedom of action through

acquiring a body of culture—especially the intellectual instrument of language. As the child grows he gains his human interests through participating in the occupations already organized by his elders. Furthermore, the school cannot be impartial in its emphasis, because it is duty bound to select the more desirable activities for its pupils. We are reminded that the average child is not destined to be a college professor, forever weighing in an agnostic attitude the evidence on one side and on the other, but that he is to become a practical man of positive, vigorous action. For such reasons, the necessity and the desirability of indoctrination in childhood and youth is set in contrast to an intellectualistic training that aims at continuous contemplation and reflection. Yet through all this argument for indoctrination runs a fervor for reforming a world where violence holds sway. Indoctrination is set forth as desirable only because no other way of achieving actual democracy is considered possible.

This confusion over the relation of indoctrination to childhood's helplessness has been clarified substantially by Thayer's classification of education into a scale of areas.⁹ At one end of his scale is an area requiring "pure indoctrination"; this area includes, in addition to habits of personal hygiene, "facts such as those of addition and subtraction, the dates and events of history, places and principles of geography and huge blocks of equally arbitrary experience." Even in this area it seems evident that thinking concerning the indisputable facts of addition and subtraction should be cultivated. Learning and teaching a *fact* is not indoctrination, for as Thayer says, indoctrination goes beyond knowledge to "the instilling of a specific belief or developing a specific habit, attitude, or disposition under conditions in

which attention centers primarily upon beliefs, attitudes, and dispositions as end results." So all teachers and parents can agree, without raising the question of indoctrination, that facts should be mastered, although the selection of facts to be mastered and the methods to be used remain important considerations.

The next area just beyond "pure indoctrination" on Thayer's four-section scale is devoted to "indoctrination with content somewhat variable." This area provides for "traits of character and principles of conduct such as honesty, trustworthiness, and other common virtues which constitute the social cement of all human groupings." Here practical parents and teachers cannot avoid indoctrination, for they recognize that "the goal is always of greater significance than the means used in reaching it," although they wish to use increasingly intelligent methods of teaching. The end rather than the method is emphasized.

At this point the author jumps to the other extreme of his scale—"NO indoctrination desired." This area is typified by problems in science where the student learns *methods* of testing hypotheses through experimentation. "Truth for its own sake is our exclusive goal." Without doubt all parents and teachers will grant the desirability of this area devoted to reflective thinking upon the problems of biology, chemistry, and physics. They may even advocate that it begin in the lower elementary grades and continue throughout the public-school program.

Adjustment of Controversial Issues to Age Levels

Between these last two areas Thayer finds "the No-Man's Land of controversial issues." Here lie the open problems of economics and social morality. Their solution is ex-

tremely important to us; our emotional desires are involved in every decision. The question is whether to crowd these issues over into the indoctrination areas or to bring them up into the nonindoctrination area among the scientific problems. Can one take a scientific, thoughtful attitude toward economic and social problems? The individuals in any group of teachers, parents, businessmen, or clergymen may be arranged upon a scale from those who would maintain that few social issues are open for discussion to those who would keep open for conference a multitude of current problems. Notice again that the former group is divided sharply into the revolutionaries and their opponents, the stand-patters. The open-minded group at the other extreme should not be confused, however, with those who neither know nor care anything about the conflicts that their children and their communities are meeting. The problem of controversial issues and indoctrination is *not* a problem for an individual unless he has a strong concern for the welfare of his community and for the children who very soon will constitute that community. The present situation demands that those who lean toward democracy become clear-eyed and constructive critics of indoctrination; then they may unite in persuading revolutionaries and stand-patters as well as the indifferent and apathetic to employ thinking so far as it contributes toward the development of a common interest for all.¹⁰

As parents and teachers become convinced that thinking should occupy a large area and indoctrination a relatively small section of education, they must be careful not to throw the problems of adult life too suddenly upon the child's shoulders. The child needs to grow by sharing in problems appropriate for his years and his individual abilities. The

selection of controversial issues for children in the early grades must be upon their own level—otherwise indoctrination rather than thinking will inevitably occur. The most sympathetic understanding of growing children and the most acute knowledge of social issues constitute the combination of abilities needed by the teacher who would prepare children and youth for participation in the social thought and action of their community. No simple rule can be laid down for proportioning indoctrination in attitudes to the cultivation of reflective thinking, but the promotion of a continually widening area of common interests may be held as a constant criterion in the selection of educative activities.¹¹

May Coercion Ever Contribute to Democracy?

When the student of democracy turns from the school's endeavors in the cultivation of thinking to problems of the political state, he may encounter the statement: "The ultimate method by which a state exerts its power is the use of force." Force is alleged to have the last word; coercion is accorded peculiar importance through its being the "ultimate" recourse. According to this view, anyone who takes the extreme position that no force should ever be used, no indoctrination ever occur, and no coercion ever be applied, is bound to meet defeat of his theoretical position. The advocates of force then argue that thinking must ever be subservient to coercion. The careful student will see, however, that the argument cannot be reduced to a simple choice between coercion and thinking. Instead of coercion being the last recourse, it may be used wisely as a temporary device whenever it contributes in the long run to the democratic way of life. Coercion appropriately used in a child's life

may contribute indirectly to his thoughtful sharing of wider interests; punishment may enable him to see more clearly how his actions affect others.¹² In the adult community, coercion may be necessary from time to time as a temporary means toward social ends, although this excuse for coercion has been used so often to conceal the early stages of a movement toward dictatorship. In general, experimentation in the direction of less and less coercion will prove to be a much more effective method of producing a wider sharing of interests; experimentation in the direction of democracy is a sounder policy than an absolute denial either of coercion or of thinking.¹³ If coercion is used thoughtfully with the eyes of all concerned open to observe and evaluate the consequences in terms of the democratic principle of sharing, even this extremely dangerous tool may be employed in rare instances for the welfare of individuals and society. Reflective thinking concerning the goal of democracy should guide the use of force at all times, while the impossibility of attaining democratic ends by the extended use of autocratic means should never be forgotten.

Relations of Thinking and Coercion in a Democracy

In considering whether or not force may have a valid use in the promotion of democracy, Dewey says that there is "no greater fallacy than the claim of those who hold to the dogma of the necessity of brute force that this use will be the method of calling genuine democracy into existence." He finds, however, an occasion to use force intelligently:¹⁴

The one exception—and that apparent rather than real—to dependence upon organized intelligence as the method of directing social change is found when society through an organized majority has entered upon the path of social experimentation

leading to a great social change, and a minority refuses by force to permit the method of intelligent action to go into effect. Then force may be intelligently employed to subdue and disarm the recalcitrant minority.

This way of using force to insure social experimentation *after* the thoughtful intelligence of the majority has reached a tentative conclusion limits coercion to a very small area. Notice also that the minority may still have the opportunity to make observations and participate in the evaluation of the social experiment as it proceeds. When we take our stand on the democratic creed, we find the principle of a widened sharing of interests continually leading us into respect for the ideas and ideals of minorities and of individuals. Consequently, a policy that minimizes coercion and emphasizes thinking by all the members of the group appears appropriate for promoting democracy not only in the small society of the school but also in the larger social projects of the community and the nation.

The majority of citizens acting through their elected representatives often find the avoidance of coercion much more difficult in dealing with minority interests than does the skillful teacher in working with recalcitrant children, who have at hand only their own personal resources. For the minority interests may hold in their hands immense economic resources that may be concentrated into a tremendous coercive force. In this connection Dewey says: ¹⁵

But what we need to realize is that physical force is used, at least in the form of coercion, in the very set-up of our society. That the competitive system, which was thought of by early liberals as the means by which the latent abilities of individuals were to be evoked and directed into socially useful channels, is now in

fact a state of scarcely disguised battle hardly needs to be dwelt upon. That the control of the means of production by the few in legal possession operates as a standing agency of coercion of the many, may need emphasis in statement, but is surely evident to one who is willing to observe and honestly report the existing scene.

Such an understanding of the economic situation leads again to a strong desire for radical and rapid social change. In the interest of continuous improvement and social stability, however, the process of co-operative thought and action is to be preferred to any violent overturn by an aggressive minority or even by an indoctrinated majority. When the process of social change goes on by means of education on a reflective-thinking level, it may be transmitted in a flexible, adjustive manner from group to group and from generation to generation. The way of thoughtful widening of common interests continually insures a permanent stability and at the same time leaves open the path of progress. In Dewey's words:¹⁸

For the only adjustment that does not have to be made over again, and perhaps even under more unfavorable circumstances than when it was first attempted, is that effected through intelligence as a method. In its large sense, this remaking of the old through union with the new is precisely what intelligence is. It is conversion of past experience into knowledge and projection of that knowledge in ideas and purposes that anticipate what may come in the future and that indicate how to realize what is desired.

It may be added that intelligence as a method can be identified with that wider sharing of purposes which leads to the realization of democratic goals. When five-year-olds

use wooden blocks in building a play farm or city, they must share intelligently a growing understanding of farm life or city life as they co-operate democratically. Likewise, eleven-year-olds who are depicting medieval life in a democratic production of their own invention must share interests in history but upon a higher intellectual level. In a similar way, each member of an adult community must share increasingly with his neighbors a mutual understanding of and interest in community projects, if democracy is to characterize the common life. These illustrations show that intelligence is involved in the sharing of interests among the members of different age groups to such an extent that the democratic creed may be used as a criterion of individual intelligence.

Even in the process of widening the area of shared interests, the problem of proportioning thinking to action arises; in the life of the individual and of the social group too little or too much time may be taken for preliminary planning and discussion. Judgment in this proportioning must be cultivated through experiences that involve emotional attitudes supporting intellectual decisions. A co-operative attitude has deep emotional roots that aid one in listening to the opinions of the other members of his group. So the promotion of democracy through social action involves both intellectual understanding and emotional good will.

Hopeful Signs and the Larger Social Task of Democracy

The complexities of the human attitudes underlying the co-operative thinking and action involved in democracy together with the strength of the forces that employ coercion to obstruct the progress of democracy might lead to a pessimistic view of the future. Hopeful signs are found, how-

ever, in the changes which have actually occurred in the public schools. A substantial change has been made in the character of public education in the United States during the generation since the Dewey Laboratory School began experimenting with a flexible, thought-provoking, co-operation-cultivating program.¹⁷ Attention has been turned definitely toward the development of social attitudes, independent thinking, and creative activity; none of these changes could occur under the old coercive regime. Almost any student who may look back ten, fifteen, or twenty years to his own elementary schooling can feel the difference between his experience then and the methods he attempts to use with children today. The present need is for teachers and parents to get a clearer view of the democratic aim for which the new methods may be used. If the conflict between the old and the new can be resolved into a plan of action that promotes a widened sharing of interests instead of resulting in a mere denial of coercion, democracy may advance with greater stability.

It is clear, however, that the larger task of education in regard to coercion, thought, and social action lies ahead in adult education. The child is being partially educated in democracy by participating in the control of the activities that go on in the school. These activities and his interest in them make demands upon his energy, his intelligence, and his emotional balance; yet these demands are not like the coercive commands of an autocratic teacher. Democratic, noncoercive forms of social organization have worked so well with children in the school that similar educative conditions would seem advisable for adults in the business world. The coercive competition of business must be modified greatly in order to produce a wide sharing of interests.

The continuance of democratic education beyond the public-school years into the years of working production can scarcely occur unless the worker can participate more fully in the planning and evaluating of the activities in which he engages. Likewise, the education of owners and managers is restricted by the lack of organizations through which they can participate more fully in the social problems of the worker. Often these executives, owing to their narrow social training, act more like emotionally immature, "bossy" children than like the mature social leaders they should be. The problem of the social, economic, and political arrangements necessary for democratic living on the adult level may be solved gradually by the intelligent, emotionally mature leaders in these fields. The public schools may promote such economic changes in many ways. The school may provide vocational guidance, produce willingness to work, and promote some degree of understanding of the larger problems of democracy; in addition, emotional attitudes appropriate for group discussion and group action may be developed. Unless adult education enters into a consideration of the means by which the sharing of economic interests may be extended, it will not greatly promote human worth. Certainly, the sound method of social change is by means of broadly educative experience rather than through an emphasis upon coercion, indoctrination, and violence.

NOTES

1. See Chapter XIV, the sections entitled, "Unending Research and Denial of External Authority," p. 308, and "Does Experimentation Favor the Sharing of Resources?" p. 309.

2. Adams, James Truslow, *The Epic of America*, New York, Little, Brown and Company, 1931, p. 404. Adams writes that America has made "no distinctive and unique gift to mankind" unless it be "the *American dream*, that dream of a land in which life

should be better and richer and fuller for every man, with opportunity for each according to his ability or achievement." The dream is a valuable gift to mankind only as it promotes actual democracy.

3. Dewey, John, *Democracy and Education*, New York, The Macmillan Company, 1916, Chap. XXVI. Early in this chapter on "Theories of Morals" attention is called to the misleading separation of the "good intentions" of an individual from the "social consequences" of his actions. Unless the well-intentioned advocate of democracy keeps in view the social effects of the methods he employs, progress toward democracy may not occur. For further light upon this conflict between "inner" intentions and "outer" consequences see: Bode, Boyd H., *Fundamentals of Education*, New York, The Macmillan Company, 1921, Chaps. IV and V. The latter chapter on "Interest, Duty, and Effort" emphasizes the relative importance of "remote interests" as compared with "immediate interests." When democracy is defined as a sharing of common interests, the interests shared may consist of goals that can be attained only through a long-continued and intelligent effort to do one's social duty. In other words, duty is redefined as remote interests—and in democracy as social interests.

4. Lindeman, Eduard C., "The Role of Intelligence in a World of Violence," *Education Planning for the Future*, Proceedings of the 1937 National Conference of the Progressive Education Association, Columbus, Ohio, American Education Press, 1937, p. 5. The fact that violence is a modern phenomenon rather than a characteristic of primitive human culture constitutes a basis for hope that ultimately intelligence will find methods for dissolving conflicts. The way in which whole nations have been made over by force within a few years is vividly depicted.

5. Bear, Robert M., *The Social Functions of Education*, New York, The Macmillan Company, 1937, Chap. XIII. Bear discusses the degree of responsibility that the school should take for the direction of social change, surveying the different attitudes taken by several groups of American educators.

6. Williams, Frankwood E., *Adolescence: Studies in Mental Hygiene*, New York, Farrar and Rinehart, 1921, pp. 70ff.

7. Counts, George S., *Social Foundations of Education*, New York, Charles Scribner's Sons, 1934, Part II, Chap. III. In this chapter on "Communication" the possibilities for either dictatorship or democracy to receive support from the new forms of communication are presented.

8. Counts, George S., *Dare the School Build a New Social Order?* New York, The John Day Company, 1932, p. 13. This pamphlet is based upon three papers prepared for national educational meetings held in February, 1932. It constitutes a vigorous argument for certain aspects of indoctrination.

9. Thayer, V. T., "Education for an Evolving Social Order," *School and Home*, March, 1934, pp. 326-335.

10. Pugh, Jesse J., "The Bias of Our Civics Textbooks," *The Clearing House*, September, 1937, pp. 15-18. Pugh illustrates the difference between the many civic textbooks that indoctrinate in favor of the present system of social organization and the few in which an honest effort is made to present material from an unbiased and critical point of view.

11. Bode, Boyd H., *Democracy as a Way of Life*, New York, The Macmillan Company, 1937, pp. 96-104. The author has faith that young people whose education avoids prescription and inculcation will reach conclusions, "in the long run and on the whole, in the direction of the democratic way of life." The quality of democratic education, however, is not negative, for it seeks a reorganization of outlook that requires "both the cultivation of sensitiveness to a wide range of diverse values and the disposition to rely for interpretation and synthesis on personal judgment."

12. *Ibid.*, p. 80ff. The need for seeing more remote ends and for acquiring wider interests is connected with the problem of coercive punishment for children and adults. Bode writes, "If freedom consists in the power of acting with reference to a 'widening circle of considerations,' then the fact that a person is held to accountability for what he does is not inherently an interference with his freedom but may become a means for the realization of freedom." From Bode, Boyd H., *Democracy as a Way of Life*. By permission of The Macmillan Company, Publishers. The problem of deciding when and how to punish a child can be answered only by understanding the child as well as the meaning of democracy.

13. See Chapter XIV, the section entitled, "Conflict of Aims in the Selection of Experiments," p. 310.

14. Dewey, John, *Liberalism and Social Action*, New York, G. P. Putnam's Sons, 1935, pp. 86f. The series of three lectures presented in this small book traces the rise and change of the liberal attitudes implied in democracy up to crucial problems of today.

15. *Ibid.*, p. 63.

16. *Ibid.*, p. 50.

17. See Note 1 to Chapter II, p. 48.

CHAPTER XVI

Finding a Social Outlook Through Experience

The problem of finding a social outlook has at least three related aspects for all individuals whether in childhood, youth, or adulthood. One aspect is the intellectual clarification of conflicts and confusions so that life may be guided by the light of a unifying purpose. In previous discussions, democracy has been set forth as an integrating aim, and suggestions were made toward the resolution of conflicts commonly encountered in schools and in the workaday world. Yet this clarification of democracy cannot penetrate deeply into one's life unless it is accompanied by emotional conditions that support the intellectual understanding. Responsibility and co-operativeness involve a social sensitivity toward other persons which leads one into certain kinds of social action, thereby giving new meaning to democracy. A person's social outlook emerges out of his social experience as the appropriate ideas and feelings grow. But the experience out of which the related aspects of emotional attitude and intellectual understanding come cannot occur unless specific modifications are made in the social institutions. Democracy operates through such institutions as the family, the public school, the co-operative union, the business corporation, and the political state. So the elimination

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onflicts is a lifeless and worthless mental exercise unless it reaches deeply into the emotional life of the individual in his relationships.¹ It should suggest methods of social organization that promote a continuous enrichment of experience. The three aspects of intellectual clarification, emotional attitude, and social organization must all be guided by the democratic creed of widened sharing.

Family Responsibility for the Infant's Experience

Even in infancy a balance between dependence and independence needs to be cultivated.²

The practical task of modifying the common family situations, in which the baby rules autocratically or in which he experiences physical insecurity, toward ideal situations for the emotional training appropriate to democracy is a public responsibility. Since the public has set the aim of education in terms of citizenship and character rather than in the degree of mere linguistic skill and book knowledge, it will have to deal with such institutions as the family, where citizenship and character are being made, as well as with the school. Parental education becomes a public function when democracy becomes the controlling aim of the school and the community. There are no psychological facts that justify delaying the child's social education until he enters school at the age of five or six; the teacher of beginners in the public school should not be loaded down with the problems that belong to infancy and the preschool years. The public educational system can take responsibility for certain phases of parental education through its contacts with parents of pupils, through the psychological and social points of view acquired in the secondary school, and through adult education.⁴ The family should not be regarded as a divinely ordained or naturally perfected institution; the application of new social ideals to family life is one important means of providing experiences which will promote a democratic social outlook.*

Preschool Child's Family Life with "Unequal" Age Levels

When the growing child steps out of infancy into a language-using experience, the responsibilities of the family are multiplied. The beginnings of ideas involved in democratic

living may now come vaguely to the child. Out of the routine of mealtime and bedtime and the diversity of play may emerge feelings and thoughts that are forerunners of independent responsibility, willingness to help others, and inclinations toward sharing the interests of others. These attitudes need to be cultivated carefully, because they represent an adjustment in the child's life to the greater abilities of parents and older brothers and sisters, and possibly to the lesser abilities of a younger child in the family. The problem of the relations of *unequals* is a fundamental one in a democracy. The family with its inequalities of age may serve well as a training ground emotionally and intellectually for the adjustment needed in a society full of inequalities of ability and power. Whether such adjustments will be made in accordance with democratic principles or will fall into autocratic forms depends in considerable measure upon the guidance of the preschool child's experience in the home. The child at five may come from his home to the school a living organization of integrated democratic adjustments, a "bossy" autocrat, a fearful follower of "bosses," or a confused mixture of anarchistic individualism and dictatorial stubbornness. The members of the family must have a clear understanding of democracy as well as an understanding of child development if the five-year-old is to come to the public school with habits, attitudes, and ideas appropriate for democratic living on his age level.

Experience With Equals During First Year at School

The child's first day in the public school marks for many children the beginnings of widened contacts with children of equal age. He now starts to learn through experience what equality—that great principle of democracy—actually

means. The rapidity with which a five- or six-year-old may learn under skillful guidance to get along with the other children indicates that much of this social learning might have been acquired earlier if as a three- or four-year-old he had attended a nursery school. Even mothers of preschool children will find the child's social experience enriched by bringing together as playmates frequently children of similar age in the appropriately sized groups of two or three individuals. Certainly, between two and six years of age the child needs to learn through actual contact how to play amicably with his equals. Learning to take one's turn, learning to permit a playmate to hold one's favorite doll and to ride one's tricycle, learning in small, spontaneous groups to join with others in a common interest, such as building a farm or a city out of blocks—these attitudes and many more are essential for a child who is to gain as he grows up deep feelings favorable to democracy. Such habits and ideals can come only through actual experience in small groups in which children pursue their activities with considerable freedom and responsibility.

The details of the social arrangements for beginners in school are important, but they can be only suggested here. Among the more important considerations are the selection of appropriate individual and group activities; the range of experience from individual activities through child-managed, small-group activities to larger-group, teacher-managed activities; and the variety of child contacts. The size of the school is also a fundamental consideration. The school from the beginning should be large enough to have several children of similar age gaining social experience with approximate equals; yet the group under one teacher's guidance should be small enough to permit adequate supervision of

the individual and small-group activities. Neither the small, one-teacher school of a dozen or less children ranging in age from five to fourteen, nor the overcrowded city schoolroom of forty or more beginners furnishes an ideal situation for this equality aspect of democratic education. Both rural and city schools may need modification in order to provide appropriate social experience for children in the beginning years.

"Here-and-Now" and "Face-to-Face" Experience

Until the child reaches the mental ability of the average seven-year-old, he is said to live in a world of "here-and-now." He is concerned only with events and persons with which he has immediate and direct contact. His stories, his play, and his school tasks should not be stretched beyond his surroundings into the far away or the long ago. Whatever he learns about democracy must come out of the "here-and-now" experiences. This principle, which has been followed in the preceding suggestions about social experience in infancy, the preschool period, and the first year of school, applies also to older children and adults as far as the development of emotional attitudes is concerned. The sociologist discussing the transmission of adult culture speaks of "face-to-face" contacts. It is evident that friendship is built upon personal, face-to-face experiences.* Likewise, the emotional background of a friendly democracy must be built upon a feeling developed between individuals as they work together in groups small enough to permit such intimate sharing of interests.† Although the attitudes acquired before the child is seven are extremely influential in the years ahead, the cultivation of democratic feelings by means of tasks solved co-operatively needs to be continued throughout life. As we

turn toward the social outlook that reaches beyond the here-and-now, let us remember that experiences in actually working for a common cause are at once the source and the test of the fundamental meaning of democracy.³

A child's experience, even before the age of seven, is something more than a round of happy, physical activities guided by his own purposes formulated in words and by the purposes communicated to him by playmates, parents, and teachers. He begins to ask questions that reach beyond the names of objects to the relations between events. Such questions are often attempts to solve intellectual conflicts; the child is trying to put together two ideas which do not seem to fit. In the informal school, questions of this sort may arise out of activities and be asked and answered if the child has a fundamental, emotional trust in his teacher. He may even bring to the teacher a question that comes out of the home experience. A seven-year-old girl, who divides her life between divorced parents, spending the school week with the mother in the country and the week end with the father in the city, asks her teacher as they walk home from school, "Why don't my Mamma and Daddy live together?" Or, perhaps she does not ask the question, although it is cutting her life in two. Fortunately, most children do not have such difficult questions forced into their lives; yet for all children the integration of experience through the discovery of clear understandings concerning relationships is necessary in the acquisition of unifying purposes. The duty of the home and the school involves helping each child to answer from day to day his questions about relationships, because these problems indicate intellectual conflicts that will result in emotional disruptions unless they are resolved. Of course, the solution of the emotional problem may re-

quire much more than an intellectual answer to a question, although the verbal reply may be an essential step. In order for parents and teachers to help their children, an emotional feeling of confidence must exist built upon the tact and intelligence with which previous questions have been met. Honesty between adults and children supported by integrity of the adult concerning his own problems is fundamental to the promotion of integrating experience in children. An understanding of the democratic principle of sharing will help solve many a problem of social relationships if it is gradually imparted to children by their adult guides.

Relating Social Studies to Social Experience

The questions of the elementary-school child soon lead beyond the here-and-now into wider relationships. Partial provision for these questions is made in the "social studies." The relations of space formerly treated in geography and the relations of time in history are now combined for children in one inclusive area. This bridging of the gap between geography and history permits more adequate answers because the relations of space and time can be used as needed. Another forward step has been the shift in emphasis from the memorization of isolated items in geography and history toward problems dealing with relationships. Furthermore, the social studies center on human problems, so that the understanding of scientific relations becomes a means of grasping social purposes. Consequently, the social studies of the modern elementary school attempt to bring into the child's experience the meaning of democracy by contrasts with the autocracies of long ago and dictatorships in lands far away. At the same time, the child gains a sympathetic understanding of the forces underlying the neglect of or

respect for democracy found now in his own community as well as in other places and at other times. While the necessity and value of this widened social outlook scarcely can be overemphasized, the teacher of eleven-year-olds must be ever alert to keep full and free the flow of kindly emotion and careful thought between the child's verbal experience in the social studies and his daily social action.

The provision for intimate social action must change as the child passes from grade to grade through the elementary school. Each individual can carry more responsibility, more individuals can work together efficiently under pupil leadership, and projects may cover an increasing span of days as well as requiring more thorough organization and attention to accuracy of detail. The children have grown up through playing together into the higher level of working together. During this process more subtle emotional attitudes are developing. Unless the teacher arranges affairs with much wisdom, the less democratic attitudes that lead to individualistic competition or to the forming of narrow cliques will invade the school. The friendly feelings engendered by the social method of work in the school constitute the emotional attitudes that may flow into the social studies, giving their content the vitality of direct experience. Gradually the child will grasp a deeper intellectual understanding of the democratic creed of continually widening common interests.

Can Boys' Groups Promote Democracy?

Not all the social activity of the eleven-year-old, however, takes place in the school. The youngster, who as a pre-school child found his social security and affection in the family, has gradually widened his base of security by ac-

cepting the teacher and his schoolmates as friends. By the time the boy is eleven, he may be finding his fullest social life in a neighborhood group or "gang." His emotional inclinations may be swayed more by his gang than by his school or his home. If the gang submits to organization as a Scout troop, the young man who is Scout leader may be more influential in the boy's life than the sixth-grade teacher or the boy's own father. Consequently, the youngster's attitude toward democratic ideals may be profoundly modified by his gang, and the guidance of the gang may be the most necessary as well as the most difficult task of a democratic community. Whether the guidance of the gang should be quite indirect through the provision of suitable equipment and environmental conditions or more direct through local and national leadership is an unsolved problem. The desirability of gangs is hardly debatable, because they actually flourish, covertly or openly. Perhaps the guidance of wise leaders may so transform "gang" life that every boy will have his chance before adolescence comes to learn certain aspects of democracy in the rough-and-tumble fellowship of a boyish social organization.

Segregation of Girls Poses a Social Problem

The fact that we have spoken freely of boy's gangs without mentioning girls indicates a divergence at this age by which the sexes become more or less segregated. Whether this separation may be due in part to difference in growth rates, by which the earlier maturing girls become in the twelfth or thirteenth year taller and heavier, to the disgust of their boy classmates, or is merely a social convention handed down by the fathers that boys are superior to girls, the sex-separa-

tion problem must be faced. No doubt most girls might learn more democracy if they were given more freedom to form gangs of their own, or at least to belong to a Girl Scout troop or a Four-H club for girls only. The problem of giving American women an adequate opportunity to appreciate the meaning of democratic sharing is beset by so many difficulties that no community can afford to neglect its pre-adolescent girls. Furthermore, this segregation of the sexes presents a serious problem for democracy. The permanent separation of any group into parts is antisocial and antidemocratic. Although boys and girls may well learn certain aspects of democracy separately at this age, society has the problem of bringing men and women together in democratic comradeship. Ballots for women is only a short step in that direction; economic democracy for women is not yet achieved. The fact that the teaching of democracy falls so heavily upon women in the home and in the elementary school suggests the importance of promoting democratic attitudes and understanding among girls before they reach adolescence.

Adolescence and a Youth Movement for Democracy

The promotion of democracy among adolescents in the secondary school is in large measure a continuance of the processes suggested for the elementary-school period. As the youth develops in age and social experience, new personal problems will arise and new conflicts will be seen. The need of older friends who are competent and truly confidential is great. These friendly guides may well include specialists, who are members of the public-school staff; physicians, nurses, psychiatrists, and vocational-guidance officials come

to mind. Organizations outside the school, such as the church, may aid. It is hoped that the parents can continue to understand and help in clarifying conflicts, though the home usually plays a constantly decreasing role. Provision needs to be made in school and outside for organizations in which youth may become more acutely conscious of democratic attitudes. Gradually, the boys and girls may find that they can organize working groups outside the school open to both sexes. These outside organizations are less likely to wish adult leadership, and consequently it is possible for greater responsibility to be shared by all the members. If these youth organizations are merely on a play level, democracy will not be greatly strengthened. A youth movement needs a social outlook which promotes in its members a clear understanding of the democratic creed rather than forming them into an emotionalized marching column that is a tool of dictatorship.

Whether a youth movement for democracy should involve the establishment of new organizations or the redirection and co-ordination of existing youth organizations toward a more definite promotion of shared interests over wider areas is certainly an open question.⁴ Most leaders of youth will agree, nevertheless, that any co-ordinated action of young people in behalf of a fuller democracy should reach beyond the direct guidance of the schools and colleges, although its action should be enlightened by the free use of all educational resources. This new kind of youth movement might achieve through its own initiative a needed step in the direction of a mature democracy.⁵ No young person or older one should ever forget, however, that in an actual democracy youth and age learn to meet upon a common ground.

Are Teachers Deficient in Democratic Experience?

How are teachers to be prepared for this broad task of promoting democratic experience from early childhood to late adolescence? First, every teacher needs to be prepared more fully through his own experience of democracy; in the case of most teachers this kind of experience has been meager indeed. Few teachers have had an opportunity to live a democratic life such as has been suggested in the preceding paragraphs. Their parental homes were not usually conducted with a clear view of the psychology underlying democracy nor of the democratic social outlook; more than likely the children were either "spoiled" or repressed. Few who read these pages have experienced democracy in early childhood through attending a nursery school. Even the beginning years in the public school in most cases did not give the child freedom, responsibility, and the opportunity for sharing in the small-group activity which characterizes the modern democratic school at its best. When the teacher or college student of today looks back at his pre-adolescent years, he may not see himself as the member of a gang or club that contributed to his democratic outlook. In his adolescence he can recall no youth movement that led him to select teaching as a profession because it presented an opportunity to engage in furthering the democratic cause. Perhaps at no time was the meaning of democracy made clear. The teacher of today has had, possibly through no fault of his own, a deficient experience in democracy. The first need, then, is for him to *catch up* in democratic experience so that he may have the emotional attitude as well as the intellectual understandings appropriate for leadership in the democratic way of life.

Fortunately, the teacher has at hand many opportunities for becoming through experience a more democratic person. In dealing with children and youth, the teacher has no doubt left harsh dictatorship behind, but may be still in the stage of the benevolent autocrat. It is quite possible to love children, especially little ones, without taking them or oneself far up the democratic path. In the secondary school it is difficult to avoid being a dictator who derives his authority from college-entrance examinations. Neither domination by the "internal" interests of children nor by the "external" demands of subject matter promotes democracy. Throughout the school days the teacher also has opportunity to practice democracy in his relations with other teachers, with specialists, and with administrators. In dealing with other teachers, willingness to carry one's share of the common responsibility, consideration for diverse points of view, and actual friendliness are democratic essentials. The relations with specialists and administrators involve in addition willingness to try new methods, creative participation in the proposal and planning of experiments, frank evaluation after trial, and mutual understanding of the goals ahead in relation to the central aim of democracy. Here an extra share of responsibility should be taken by the specialist and administrator for democratic encouragement and consideration of suggestions from the classroom teachers.

The teacher needs to add to these experiences inside the school others that reach into the community. The relations of parents and teachers both in private conferences and in organizations, such as the parent-teacher association, offer opportunities for teachers and parents as well to widen their sharing of interests. Too often a P. T. A. has been nicknamed T. P. A. because teachers carried more than their

share. One more area in which teachers may learn democracy is through membership in community groups representing a variety of vocations and interests. In such mixed groups the teacher may come to feel and see some of the more difficult problems of adult democracy. A teacher may learn how to work with other persons in spite of their undemocratic upbringing, and at the same time he may come to appreciate more fully the need for bringing up children and youth more democratically. Through these several types of experience teachers may "catch up" on their neglected training in democracy.

The Further Study of Democracy by Teachers

The emphasis upon gaining practical democratic experience through direct social contacts should not lead the teacher in service nor the student in the teacher-training institution to neglect the private reading and study essential for an adequate social outlook. It is true that the actual participation in democratic social processes is necessary in building emotional attitudes and discovering problems and remedies; furthermore, such participation constitutes the social action which is the practical goal of all preliminary planning and thinking. Yet the student of education, who will soon become a teacher, must *study*; he must spend much time attaining an understanding of the sciences, especially the sciences of human culture. He needs psychology, sociology, economics, and history, especially. But he needs also to learn how to gather these scientific facts into relationships that will throw light upon the fundamental problems of education and of life.⁶ He needs most of all to begin the formation of an intelligent social outlook or a philosophy of life. In America his point of view may con-

sist of an understanding of democracy in its various transitions with a look ahead to the creation of a more adequate interpretation. Consequently, every instructor in a teacher-training institution is responsible for contributing toward the student's democratic outlook as adequately as the conditions of undergraduate study permit.⁷

The teacher in service must continue to be a *student* of democracy and of the sciences that underlie democracy, for the sciences will continue to reveal new facts, and democracy itself must be reinterpreted from time to time. The teacher on the job has difficulty in maintaining this studious attitude. He may be isolated from intellectual contacts in a small community; he may have his time absorbed by direct social contacts that contribute little to his critical view of democracy. In either case he must discover ways of continuing his intellectual growth through a careful selection from journals, books, theaters, and radio programs. He should take time for this side of his life, so that he approaches his social action with social light. He may well insist that the professional conferences which he attends devote a portion of their time to the larger issues that affect the larger community rather than devoting themselves entirely to school details and to the protection of the teachers' social security, important as both these areas are.⁸ If an appropriate degree of attention is devoted to the critical consideration of the social situation by all educational groups—not only the public-school teachers but the university instructors in the professions of law, medicine, engineering, journalism, and business administration—a great contribution to the democratic movement could occur within the broad limits of the teaching profession.⁹ Until their teachers acquire democratic attitudes and understandings, young people must

struggle feebly against the pressures and conflicts of confusing traditions.¹⁰

Mental "Compensation" and Its Contrasting Dangers

There remains a psychological danger that all who would work effectively for democracy must avoid; it is the evasive mental adjustment called "compensation." The psychologist points out the steps by which the mechanism of compensation operates. At first a vibrant social theory stimulates teachers to attack exploitation of children and adults in their community, but a securely entrenched economic system is encountered. Being thwarted in their attempts at democratic social action, they resort, as a mental compensation, to the elaboration of a democratic theory in which co-operation goes on freely—as long as it remains theory. KalLEN has clearly shown how such idealistic theories may turn out to be "an insurance of the *status quo*. They constitute a channel of doctrine and utterance into which the otherwise disruptive energies of rebellion and discontent may overflow."¹¹ Thus, the philosophy of democracy may become for some teachers a soothing syrup rather than a stimulating draft leading to social action. This compensatory adjustment may even be carried into feeble action when liberal-minded teachers fence off in schools little areas of life for children where a radical social theory may operate in security. As long as the kindly home and school nurture the child within an artificially heated co-operative atmosphere where he is protected from personal aggression, the fond teachers and parents may point with pride to his honest, happy, wholehearted activities. Those protected teachers, who smile on oblivious to the struggles of the youth when he finally goes out to meet "hard times" among rugged in-

dividualists, have a mental escape which compensates for their defeat by the business regime. This evasion is dangerous, for, in Kallen's warning words, "Compensation is not control."

On the other hand, no teacher should be diverted from a social theory carefully built upon an understanding of experience because someone says, "You are only compensating for the lack of order in your own personal life; that is all there is to your social outlook." Not everyone who looks forward hopefully and works strenuously for a more democratic life is psychopathic. Although a parent or teacher might react against the harsh or pampered experiences of his childhood by promoting a better-balanced life for his children, the zest added by the emotional reaction does not make the social action itself any less intelligent or sane. Beware of compensation, but beware also of the "stand-patter" who obstructs the path of progress by shouting, "Compensation!" every time a new social experiment is proposed.¹²

Reconstruction of Experience through a Democratic Outlook

The emphasis upon experience means the *choice* of experiences that lead toward democracy. Furthermore, the *reconstruction* of experience into a well-organized view of the past upon which future choices may be based is involved in the democratic way of life. Varied experiences in themselves may merely produce diverse, segregated habits. A social outlook comes from focusing upon the evaluation and reorganization of the events of life for the purpose of planning the future more intelligently. In attempting to determine whether the life of an individual or a community is moving toward democracy, Dewey offers two criteria: "How numerous and varied are the interests which are consciously

shared? How full and free is the interplay with other forms of association?" With constructive criticism, Bode points out that some persons may have an expansion of experience without becoming any more democratic. The members of a dictatorship may share more fully with the members of another dictatorship than can persons who believe in democracy. Even democracy, as a generalized attitude, "shuts out certain possibilities for sharing and also creates its own distinctive opportunities for sharing." So the choice of democratic experiences inevitably results in a bias toward democracy, which needs some safeguard lest it lead into blind faith in democracy. An available method in accord with the democratic creed is to use each experience in thoughtful reconstruction of previous experiences, so that one's social outlook becomes as adequate as one's ability and training permit. When democracy is treated as a continual widening of the area of common interests, provision is thereby made for such reconstruction of experience and the practical reinterpretation of democracy.¹³

The teacher's responsibility for guiding each learner in making a continuous reconstruction of his experience is very definite in a democracy. Each individual is expected to think for himself and to construct his own philosophy of life. He must have guidance, and yet teachers should not predetermine the outcome of his thinking, for then it would not be his. Together teacher and learner should attack the conflicts of thought and action which interfere most with their understanding and practice of democracy. The clarification of conflicts and confusions will promote the reorganization of social institutions, like the family, the public school, the business corporation, and the political state, in such ways as will give opportunity for a fuller realization of demo-

cratic experience. These selected experiences when evaluated and interpreted will form emotional and intellectual bases for still more adequate forms of democratic social organization. The cure for democracy's ills is a clearer view of the complex implications of democracy.¹⁴

The need of the day is a common sharing of the interest in discovering thoughtfully the meaning of democracy and finding experimentally the human possibilities of democratic action. As Hogben has said, "We shall reinstate the supremacy of reason only when we can educate statesmen with a vision of what human life could be, if the vast treasure-house of scientific knowledge were dedicated to the common needs of mankind."¹⁵ And following Hogben still further we would plead that the concentration upon conflicts should never lead to "the love of disputation which paralyzes constructive effort. . . . Knowledge which hath a tendency to use is the only proper preparation of a race of young men and women provided against the next age." Unless one's understanding of democracy goes into social use, he does not deserve to share in the democratic way of life. Whenever any person intelligently accepts the common faith in democracy as his way of life, his daily action may acquire a religious quality that promotes a like faith in all his fellows. Educative experience should open to all an opportunity to share creatively in the democratic faith.¹⁶

NOTES

1. In this connection, the student may well read the following: Bode, Boyd H., *Progressive Education at the Crossroads* (New York, Newson and Company, 1938), Chap. VIII, "Applying the Progressive Philosophy"; Dewey, John, *Experience and Education* (New York, The Macmillan Company, 1938), Chap. VIII, "Experience—the Means and Goal of Education." Both these closing chapters sup-

port our faith that a social outlook may be found by each individual through his own widening experience.

2. See Chapter I, the section entitled, "Conditioning: a Support for Social Education," p. 23.

3. Mitchell, Lucy Sprague, and co-authors, *Another Here and Now Story Book*, New York, E. P. Dutton and Company, 1937, pp. 231-249. This description of "six-year-oldness" presents transitional experiences reaching toward the far away and long ago.

4. Chambers, M. M., "Organized Youth in America," *Journal of Educational Sociology*, February, 1938, pp. 351-359. A concise statement of the confused situation among youth organizations at the present time. This issue of the *Journal* consists of articles upon "The Challenge of Youth."

5. See Notes 4 and 5 to Chapter I, p. 25.

6. Cooper, Hermann, "A Forward Look in Teacher Education," *Education*, December, 1935, pp. 195-200. This article makes clear that the raising of teaching from the status of a vocation to that of a recognized profession is a necessity of American democracy. The student-teacher may well remember that his own qualifications must increase as he takes responsibility for participation in a more democratic educational system.

7. Hunt, Charles W., "The Development of Standards in the Teachers College," *Educational Administration and Supervision*, January, 1933, pp. 11-17; "The American Association of Teachers Colleges," *Educational Administration and Supervision*, October, 1935, pp. 490-496. These two articles will suggest to the thoughtful student how deeply rooted in the democratic tradition are our American teacher-training institutions. The student who understands the history of the teachers' college in which he is a participating member will appreciate more fully the contribution of teacher-training institutions toward making higher education more democratic—in closer accord with the purposes and needs of the common life.

8. Altstetter, M. L., "The Philosophy of Education of Two Hundred Secondary Schools," *Educational Administration and Supervision*, September, 1937, pp. 409-425. The results of this nation-wide survey show that teachers and administrators seek continually to reconcile the conflicting aims of education by statements that bring out the relationship between the various objectives.

9. Hullfish, H. Gordon, "The Philosophy of Education in a Changing Social Order," *Educational Administration and Super-*

vision, May, 1934, pp. 365-372. Presenting vivid evidence of the need, Hullfish urges that the prospective teacher be brought to "the realization that present educative practices are directed by values that are themselves in conflict, and that he faces the obligation of selecting one course of educative action over another."

10. Attention may be called again to the following: Dewey, John, *Democracy and Education* (New York, The Macmillan Company, 1916), Chap. VII, "The Democratic Conception of Education"; Bode, Boyd H., *Fundamentals of Education* (New York, The Macmillan Company, 1921), Chap. III, "Education and Democracy." A complete reading of Bode's *Democracy as a Way of Life* (New York, The Macmillan Company, 1937) and Dewey's *The Public and Its Problems* (New York, Henry Holt and Company, 1927) is also recommended for the mature student.

11. Kallen, Horace M., *Education, the Machine, and the Worker*, New York, New Republic, 1925, p. 39.

12. Lindeman, E. C., "Crises of Maturity; Personal and Cultural," *Education Planning for the Future*, Proceedings of the 1937 National Conference of the Progressive Education Association, Columbus, Ohio, American Education Press, 1937, p. 22. A psychological analysis is made of the factors that interfere with maturity and thereby with planning and progress.

13. Dewey, *Democracy and Education*, *sup. cit.*, pp. 89-93; Bode, *Democracy as a Way of Life*, *sup. cit.*, pp. 89-95.

14. Smith, T. V., *The Philosophic Way of Life*, Chicago, The University of Chicago Press, 1929, Chap. IV. In this chapter entitled, "The Social Way of Life with John Dewey as Guide," the key idea of Dewey's philosophy is seen as "shared experience." This concept is interpreted in terms of education and of democracy. In other chapters the ideas of Josiah Royce about "the religious way of life," of William James about "the scientific way of life," and of George Santayana about "the aesthetic way of life" are set forth. In a final chapter the author says he has "emerged at the end with something borrowed, something declined, from all proffered guides."

15. Hogben, Lancelot, *The Retreat from Reason*, London, Watts and Company, 1936, pp. 80ff. In this single lecture a distinguished biologist shows how the study of natural science combined with the study of social science may lead to happier human living. Reprinted by courtesy of Random House, Inc., New York, American publishers.

16. Dewey, John, *A Common Faith*, Yale University Press, 1934, pp. 85-87. In the concluding paragraphs of this brief analysis of the religious values possible in the modern world, Dewey suggests a religious faith open to all mankind.

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